

Lucent Technologies
Bell Labs Innovations



AnyMedia[®] Access System

(24 Channel)
Ordering Guide

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The ordering number for the AnyMedia® Access System *Applications, Planning, and Ordering Guide* and this *Ordering Guide* is 363-211-101. To order just the *Ordering Guide*, use the ordering number is 363-211-125. To order this document call 1-888-LUCENT8. RBOC/BOC customers should process document orders or standing document orders through their Company Documentation Coordinator. For more ordering information, refer to "How to Order Documents" in the section "About This Document."

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AnyMedia[®] Access System

Ordering Guide

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Overview

This guide provides the ordering information for the *AnyMedia* Access System. It reflects the currently orderable items at the time of printing. For the most recent ordering information, consult your account team or see:

<http://www.lucent8.com/library/AnyMediaOrderingGuide.pdf>

This guide reflects the *AnyMedia* Access System product set, which presently includes:

- A basic remote terminal (RT) application with POTS, ATM xDSL, coin, ISDN, and two-wire special services for providing either an integrated or a universal *AnyMedia* DLC system
- A central office terminal (COT) application that supports a universal system configuration to a subtending *AnyMedia* RT or Public Utilities Bulletin (PUB) 43801 bank
- An optional MDS2 shelf for providing additional special service capabilities at either an RT or COT
- An optional wideband optical facility shelf
- An IAT host application that supports the *ConnectReach*[™] and *ConnectReach Plus*[™] Terminals plus a generic D4 interface capability (PUB 43801) from an RT.

The RT application is available in two mounting configurations:

- Front and rear access system—An *AnyMedia* Access System that is positioned so that you can reach the front and the back. A front and rear access system is not equipped with dangler cables.
- Front-only access—An *AnyMedia* Access System that can only be accessed from the front and includes dangler cables.

As well as ATM xDSL capabilities, the RT offers the following telephony capabilities:

- TR-08, GR-303, and INA interfaces to a D4 bank
- VF and special service growth, as well as unbundling applications.

The RT application offers these choices of cabinets:

- Avaya 82A cabinet
- Avaya 52B cabinet
- Avaya 52-E type cabinet
- Avaya 92C cabinet.

The COT application is only available for use in bays, which provide both front and rear access, and offers the following capabilities:

- Supports a full range of telephony services in conjunction with an *AnyMedia* RT
- TR-08, GR-303, and INA interfaces to the RT or to a D4 bank
- Intended for VF and special service growth as well as unbundling applications.

Issue

This is Issue 9 of the *AnyMedia*[®] Access System (24 channel) *Ordering Guide*.

Reason for reissue

The Ordering Guide is being reissued to include ordering information about the following new features:

- R1.13 (Data with duplex)—Provides pack protection with AFMDS3, and pack and facility protection with AFMO.
-

Drawing numbers

For up-to-date, detailed information on this equipment, please refer to the most current issue of the following:

- J1C282A-1, framework assembly and equipment for one *AnyMedia* Access System 7-foot RT bay with three fan-cooled J1C282AA-1, L2 shelves
- J1C282AA-1, J1C282AB-1, or J1C282AC-1 *FAST* shelf
 - J1C282AB-1 shelf includes a replaceable FCM with duplicated power feeds (OR-ing diodes switch to support both “halves” of the shelf in the event of the loss of one input feed) and reversible mounting brackets for an RT or CO (flush mount) configuration
 - J1C282AC-1 shelf includes a replaceable FCM with direct power feeds (two separate feeds; in the event of a loss of one feeder, half of the application packs will lose power) and reversible mounting brackets for an RT or CO (flush mount) configuration
 - The J1C282AC-1 *FAST* shelf replaces the J1C282AA-1 *FAST* shelf.
- J1C286AA-1, MDS2 shelf
- J1C288AA-1 FiberReach Wideband Shelf and MDS2 Block
- SD7C228-01, bay application schematic for J1C282AA-1 *FAST* shelves
- SD7C253-01, RT bay with J1C282AB-1 or J1C282AC-1 *FAST* shelves
- SD7C230-01, shelf schematic for J1C282AA-1 *FAST* shelves
- SD7C246-01, shelf schematic for J1C282AB-1 or J1C282AC-1 *FAST* shelves

- SD7C239-01, MDS2 shelf application schematic
 - SD7C243-01, MDS2 Block and Carrier application schematic
 - ED7C837-30, Ringing Filter Unit
 - ED7C723-36, PGTC cable
 - ED7C723-37, MDS2 cables
 - ED7C827-32, ED7C827-31, and ED7C827-30 cables to interface with the MDS2 shelf
 - ED7C829-32, data interface cables
 - ED8C800-50, 7-foot bay
 - ED7C818-32, DS1 feeder cable assembly, office clock, TAP interface, miscellaneous alarm input, ringing voltage, power, fan alarm, LAN interface cables, ATU cables (for ATU 107417537), FAST and MDS2 shelf cables, and office alarm interface cables.
-

**Additional
information**

Refer to the supplementary documentation listed below for information on complete pre-engineered shelf and bay applications:

- *AnyMedia Access System Applications, Planning, and Ordering Guide, 363-211-101*
- *AnyMedia Access System Installation Manual, 363-211-102*
- *MDS2 Feature Supplement, 363-211-106*
- *COT Feature Supplement, 363-211-128*
- *DDM-2000 FiberReach Multiplexer Applications, Planning, and Ordering Guide, 363-206-300.*

See page 92 for a comprehensive list of the documents.

System Ordering Information

General

An *AnyMedia* Access System RT or COT consists of the following:

- A *FAST* shelf
- An MDS2 shelf (optional) for added two- and four-wire special services capabilities
- A FiberReach Wideband Shelf and MDS2 Block (optional) for optical interface capability and the MDS2 special services (RT only)
- Optional *ConnectReach* or *ConnectReach Plus* Terminals (RT only)
- Optional Alarm Test Unit (ATU) Assembly (COT only)
- Fans or baffles
- Cables to interface the shelves with feeder networks and to the customer lines and ancillary equipment
- Circuit and application packs (APs) to provide various customer services
- System software, including the Management Interface and operating system software
- Digital test access (DTA) (optional).

The system components are described in detail in the *Applications, Planning, Ordering, and Guide*, Chapter 5, Product Descriptions.

- Shelves, baffles, and fans are listed on page 26 through page 31
- Cables, including those used to support alarms, LAN, and test access are listed beginning on page 42
- Circuit packs and APs are listed beginning on page 65
- System software is listed on page 75.

Some applications of the *AnyMedia* Access System are described on pages 14 through 22. They are

- Typical RT FAST shelf application (telephony only)
- Typical simplex RT FAST shelf application (ATM xDSL only)
- Typical simplex RT FAST shelf application (telephony and ATM xDSL)
- Typical RT FAST shelf application (IAT only)
- Typical RT FAST shelf application (telephony and MDS2)
- Typical COT FAST shelf application (telephony only and MDS2).
- Typical RT FAST shelf application (ATM xDSL only) with duplex AFMs.

 **NOTE:**
Ordering may be done using HECI codes instead of full CLEI codes. The HECI code is the first 7 digits and/or letters of the CLEI code.

**Typical RT FAST
shelf application
(telephony only)**

A typical *AnyMedia* RT FAST shelf using duplicated power, a 6B fan assembly, DS1 cables going to a DSX crossconnect, and sixteen POTS APs providing 512 POTS lines for telephony service, requires

Description	Quantity	Part #/Drawing #/Comments
FAST Shelf Assembly	1	Drawing # J1C282AB-1. CLEI Code SLM1SW0CRA. (See page 26.)
6B Fan Assembly	1	Comcode 109107839. (See page 26.)*
Power Cable—Duplicate Power	2	Drawing # ED7C818-32. Two from G13 (25 ft. each). (See page 43.)
DS1 Cable Assemblies	4	Drawing # ED7C818-32. Two cables from G1; two from G2. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 44.)
VF Cable Assembly	16	Drawing # ED7C818-30. 16 from G1. Length (50, 100, 200, 300, 600 ft.) depends on distances in application. (See page 42.)
TAP Cable Assembly	1	Drawing # ED7C818-32. One cable from G4. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 49.)
Miscellaneous Alarm Cable Assembly	1	Drawing # ED7C818-32. One from G5. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 46.)
Ringling Power Cable	1	Drawing # ED7C818-32. One from G6. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 43.)
RTU Cable	1	Drawing # ED7C818-32. One from G10. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 48.)
LAN Interface Cable	1	Drawing # ED7C818-32. One from G9. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 51.)

Description	Quantity	Part #/Drawing #/Comments
Clock Cable Assembly	1	Drawing # ED7C818-32. One cable from G3. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 58.)
Composite Clock Kit	1	Drawing # ED7C818-34. One from G1. Needed for timing input. (See page 58.)
COMDAC COM101	2	CLEI Code SLC1CGMCAA. Provides central control and transmission fabric. (See page 66.)
IODS1 FAC100	6	CLEI Code SLC1EJ0CAB. (See page 66.)
POTS32 LPA300C	16	CLEI Code SLCI4W3DAA. (See page 67.)

* A 6B fan assembly is always required when the shelf is equipped with any of these APs: ADSL16p LPA416, P32A8 LPA810.

**Typical simplex
RT FAST shelf
application (ATM
xDSL only)**

A typical *AnyMedia* RT FAST shelf using duplicated power, a baffle, an AFMDS3 with daisy-chaining to one other shelf, and fifteen LPA416 APs providing 120 ATM xDSL services, requires

Description	Quantity	Part #/Drawing #/Comments
FAST Shelf Assembly	1	CLEI Code SLM1SW0CRA. Drawing # J1C282AB-1. (See page 26.)
6B Fan Assembly	1	Comcode 109107839. (See page 26.)*
Power Cable—Duplicate Power	2	Drawing # ED7C818-32. Two cables from G13 (25 ft. each). (See page 43.)
VF Cable Assembly	15	Drawing # ED7C818-30. 15 from G1. Length (50, 100, 200, 300, 600 ft.) depends on distances in application. (See page 42.)
LAN Interface Cable	1	Drawing # ED7C818-32. One from G9. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 51.)

Description	Quantity	Part #/Drawing #/Comments
AFMDS3 interface cables to ATM switch	2	Drawing # ED7C829-32. Two cables from G1, G2, or G3. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 51.)
AFMDS3 daisy-chaining coaxial cables to additional AFMDS3 circuit packs	2	Drawing # ED7C829-31. Two cables from G1 or G10. Length (5, 8, 12, 20, 1.5 ft.) depends on distances between shelves. (See page 51.)
AFMDS3 LPA901	1	CLEI Code SLL3SUOFAA. (See page 66.)
ADSL16P LPA416	15	CLEI Code ESPQA2BAAB. (See page 69.)

* A 6B fan assembly is always required when the shelf is equipped with any of these APs: ADSL16p LPA416, P32A8 LPA810.

**Typical simplex
RT FAST shelf
application
(telephony and
ATM xDSL)**

A typical *AnyMedia* RT FAST shelf using duplicated power, a 6B fan assembly, an AFMDS3 with daisy-chaining to one other shelf, and providing 224 POTS lines and 64 ATM xDSL plus POTS lines, requires

Description	Quantity	Part #/Drawing #/Comments
FAST Shelf Assembly	1	Drawing # J1C282AB-1. CLEI Code SLM1SW0CRA. (See page 26.)
6B Fan Assembly	1	Comcode 109107839. (See page 26.)*
Power Cable—Duplicate Power	2	Drawing # ED7C818-32. Two cables from G13 (25 ft. each). (See page 43.)
VF Cable Assembly	15	Drawing # ED7C818-30. 16 cables from G1. Length (50, 100, 200, 300, 600 ft.) depends on distances in application. (See page 42.)
DS1 Cable Assemblies	4	Drawing # ED7C818-32. Two cables from G1; two from G2. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 44.)

Description	Quantity	Part #/Drawing #/Comments
TAP Cable Assembly	1	Drawing # ED7C818-32. One cable from G4. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 44.)
Miscellaneous Alarm Cable Assembly	1	Drawing #ED7C818-32. One cable from G5. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 46.)
Ringing Power Cable	1	Drawing # ED7C818-32. One from G6. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 43.)
RTU Cable	1	Drawing # ED7C818-32. One cable from G10. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 48.)
LAN Interface Cable	1	Drawing # ED7C818-32. One from G9. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 51.)
Clock Cable Assembly	1	Drawing # ED7C818-32. One cable from G3. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 58.)
Composite Clock Kit	1	Drawing # ED7C818-34. One from G1. Needed for timing input. (See page 58.)
AFMDS3 interface cables to ATM switch	2	Drawing # ED7C829-32. Two cables from G1, G2, or G3. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 51.)
AFMDS3 daisy-chaining cables to additional AFMDS3 circuit packs	2	Drawing # ED7C829-31. Two cables from G1 or G10. Length (5, 8, 12, 20, 1.5 ft.) depends on distances between shelves. (See page 51.)
COMDAC COM101	2	CLEI Code SLC1CGMCAA. Provides central control and transmission fabric. (See page 66.)
CTU DTP104	1	CLEI Code SLTSHK0EAA. (See page 66.)

Description	Quantity	Part #/Drawing #/Comments
IODS1 FAC100	6	CLEI Code SLC1EJ0CAB. (See page 66.)
AFMDS3 LPA901	1	CLEI Code SLL3SUOFAA. (See page 66.)
POTS32 LPA300C	7	CLEI Code SLCI4W3DAA. (See page 67.)
ADSL8p LPA408	8	CLEI Code E5PQAOVAAD. (See page 68.)

* A 6B fan assembly is always required when the shelf is equipped with any of these APs: ADSL16p LPA416, P32A8 LPA810.

Typical RT FAST shelf application (IAT only)

An *AnyMedia* RT FAST shelf using a baffle, and 16 LPS100 IAT interface cards to serve 32 IATs, requires

Description	Quantity	Part #/Drawing #/Comments
FAST Shelf Assembly	1	Drawing # J1C282AB-1. CLEI Code SLM1SW0CRA. (See page 26.)
FAST Baffle	1	Comcode 848244745. (See page 26.)*
Power Cable—Duplicate Power	2	Drawing # ED7C818-32. Two cables from G13 (25 ft. each). (See page 43.)
DS1 Cable Assemblies	48	Drawing # ED7C818-32. 16 cables from G1; 32 from G2. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 44.)
Miscellaneous Alarm Cable Assembly	1	Drawing # ED7C818-32. One cable from G5. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 46.)
RTU Cable	1	Drawing # ED7C818-32. One cable from G10. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 48.)

Description	Quantity	Part #/Drawing #/Comments
LAN Interface Cable	1	Drawing # ED7C818-32. One from G9. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 51.)
Clock Cable Assembly	1	Drawing # ED7C818-32. One cable from G3. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 58.)
IAT Server Cables (Y cables)	16	Drawing # ED7C839-31. 16 from G2 Required in an RT equipped with DS1 IATS2 Server cards. Length (50, 100, 200, 300, 600 ft.) depends on distances in application. (See page 45.)
IATS2 LPS100	16	CLEI Code SLCPHOMAAA. Comcode 1084479621. (See page 67.)
COMDAC COM101	2	CLEI Code SLC1CGMCAA. Provides central control and transmission fabric. (See page 66.)
CTU DTP104	1	CLEI Code SLTSHK0EAA. (See page 66.)
IODS1 FAC100	6	CLEI Code SLC1EJ0CAB. (See page 66.)

* A 6B fan assembly is always required when the shelf is equipped with any of these APs: ADSL16p LPA416, P32A8 LPA810.

Typical RT FAST shelf application (telephony and MDS2)

A typical *AnyMedia* RT FAST shelf using a 6B fan assembly, providing 448 lines of telephony service using POTS32 LPA300C APs, and interfacing two halves of an MDS2 shelf with front and rear access, requires the equipment in the first table below. The MDS2 shelf has 24 CU slots. It can provide up to 96 lines of special services, and is typically located directly above the FAST shelf. It requires the equipment in the second table below.

Description	Quantity	Part #/Drawing #/Comments
FAST Shelf Assembly	1	CLEI Code SLM1SW0CRA. Drawing # J1C282AB-1. (See page 26.)
6B Fan Assembly	1	Comcode 109107839. (See page 26.) Each shelf requires one fan or baffle.*

Description	Quantity	Part #/Drawing #/Comments
Power Cable—Duplicate Power	2	Drawing # ED7C818-32. Two cables from G13 (25 ft. each). (See page 43.)
VF Cable Assembly	14	Drawing # ED7C818-30. 15 cables from G1. Length (50, 100, 200, 300, 600 ft.) depends on distances in application. (See page 42.)
DS1 Cable Assemblies	4	Drawing # ED7C818-32. Two cables from G1; two from G2. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 44.)
TAP Cable Assembly	1	Drawing # ED7C818-32. One cable from G4. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 44.)
Miscellaneous Alarm Cable Assembly	1	Drawing # ED7C818-32. One cable from G5. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 46.)
Ring Power Cable	1	Drawing # ED7C818-32. One from G6. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 43.)
RTU Cable	1	Drawing # ED7C818-32. One cable from G10. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 48.)
LAN Interface Cable	1	Drawing # ED7C818-32. One cable from G9. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 51.)

Description	Quantity	Part #/Drawing #/Comments
Clock Cable Assembly	1	Drawing # ED7C818-32. One cable from G3. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 58.)
Composite Clock Kit	1	Drawing # ED7C818-34. One from G1. Needed for timing input. (See page 58.)
MDSU MSU100	2	CLEI code SLCPH0MAAA. Comcode 108447962. (See page 67.)
POTS32 LPA300C	14	CLEI code SLC14W3DAA. Comcode 108467747. (See page 67.)

* A 6B fan assembly is always required when the shelf is equipped with any of these APs: ADSL16p LPA416, P32A8 LPA810.

The MDS2 shelf served by the above *FAST* shelf uses 24 APs to provide up to 96 lines of special services. It requires

Description	Quantity	Part #/Drawing #/Comments
MDS2 Shelf	1	CLEI code SAM2BE0BRA. Drawing # J1C286AA-1, L3. (See page 27.)
MDS2 Shelf Baffle	1	Comcode 848244778. (See page 27.)
MDS2 VF Cable	1	Drawing # ED7C723-37. One cable from G4, G5, G6, or G22. Length (75, 150, variable length, 250 ft.) depends on distances in application. (See page 55.)
MDS2 Ringing Power Cable	1	Drawing # ED7C818-32. One cable from G6. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 43.)
Power and Test Unit (PTU) BDJ200B	2	CLEI code SAPQACWBAD. Comcode 107831208. Apparatus code BDJ2008. (See page 70.)
Metallic Shelf Controller (MSC) MSC100	2	CLEI code SACPHM0BAA. Comcode 108244377. (See page 70.)
MDSU CUs	24	As required by services (See CU list on page 70.)

Typical COT FAST shelf application (telephony only and MDS2)

A typical *AnyMedia* COT FAST shelf with rear-only access, direct power, and that provides remote telemetry, 480 lines of telephony service using PRCOINCS LPA150 APs, and that interfaces two halves of an MDS2 shelf, requires

Description	Quantity	Part #/Drawing #/Comments
FAST Shelf Assembly	1	CLEI Code SLM1SX0CRA. Drawing # J1C282AC-1. (See page 28.)
6B Shelf Fan Assembly	1	Comcode 109107839. Each shelf requires one fan.*
Power Cable—Direct Power	1	Drawing # ED7C818-32. One cable from G8. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 43.)
Fan and Power Alarm Interface Cable	1	Comcode 848571790. (See page 46.)
VF Cable Assembly	14	Drawing # ED7C818-30. 14 cables from G1. Length (50, 100, 200, 300, 600 ft.) depends on distances in application. (See page 42.)
DS1 Cable Assemblies	4	Drawing # ED7C818-32. Two cables from G1; two from G2. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 44.)
LAN Interface Cable	1	Drawing # ED7C818-32. One cable from G9. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 51.)
Clock Cable Assembly	1	Drawing # ED7C818-32. One cable from G18. (See page 58.)
Composite Clock Kit	1	Drawing # ED7C818-34. One from G1. Needed for timing input. (See page 58.)
ATU Power Cable	1	Drawing # ED7C818-32. One from G20. (See page 43.)
Audible/Visible Office Alarm Cable	1	Drawing # ED7C818-32. One from G16. (See page 46.)
ATU Telemetry Cable	1	Drawing # ED7C723-37. One cable from G19, G20, G21. Length (70, 150 ft.) depends on distances in application. (See page 48.)

Description	Quantity	Part #/Drawing #/Comments
PGTC Cable	1	Drawing # ED3D861-20. One cable from G19 or G20. Length (50, 100 ft.) depends on distances in application. (See page 48.)
1A Alarm Test Unit (ATU)	1	CLEI code SAMYAA7BAB. Comcode 107417537. Recommended. (See page 28.)
MDSU MSU100	2	CLEI code SLCPH0MAAA. Comcode 108447962. (See page 67.)
PRCOINCS LPA150	14	CLEI code SLC14W3DAA. Comcode 108467747. (See page 67.)

* A 6B fan assembly is always required when the shelf is equipped with any of these APs: ADSL16p LPA416, P32A8 LPA810.

The MDS2 shelf served by the above *AnyMedia* COT *FAST* shelf provides 24 lines of telephony service using 24 CUs (customer provides CUs on an as-required basis). The MDS2 shelf requires

Description	Quantity	Part #/Drawing #/Comments
MDS2 Shelf	1	CLEI code SAM2BE0BRA. Drawing # J1C286AA-1, L4. (See page 27.)
MDS2 Shelf Baffle	1	Comcode 848244778. (See page 27.)
MDS2 Power Cable	1	Drawing # ED7C827-32. One cable from G1 (25 ft.). (See page 43.)
MDS2 VF Cables	1	Drawing # ED7C723-37. One cable from G4, G5, G6, or G22. Length (75, 150, variable length, 250 ft.) depends on distances in application. (See page 55.)
MDS2 Ringing Power Cable	1	Drawing # ED7C818-32. One cable from G6. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 43.) Although the J1C286AA-1, L4 MDS2 shelf has a dangler that can connect directly to the <i>FAST</i> shelf without other cabling, the MDS2 shelf may not always be located closely enough to the <i>FAST</i> shelf to allow this.

Description	Quantity	Part #/Drawing #/Comments
Power and Test Unit (PTU) BDJ200B	2	CLEI code SAPQACWBAD. Comcode 107831208. (See page 70.)
Metallic Shelf Controller (MSC) MSC100	2	CLEI code SACPHM0BAA. Comcode 10824437. (See page 70.)
MDSU CUs	24	As required by services (See CU list on page 70.)

Typical RT FAST shelf application (ATM xDSL only) with duplex AFMs

A typical *AnyMedia* RT FAST shelf in duplex AFM configuration (pack protection). The shelf uses duplicated power, a 6B fan assembly, two AFMDS3s with daisy-chaining to one other shelf, and fourteen LPA416 APs providing ATM xDSL services. The shelf requires

Description	Quantity	Part #/Drawing #/Comments
FAST Shelf Assembly	1	CLEI Code SLM1SW0CRA. Drawing # J1C282AB-1. (See page 26.)
6B Fan Assembly	1	Comcode 109107839. (See page 26.)*
Power Cable—Duplicate Power	2	Drawing # ED7C818-32. Two cables from G13 (25 ft. each). (See page 43.)
VF Cable Assembly	14	Drawing # ED7C818-30. 14 from G1. Length (50, 100, 200, 300, 600 ft.) depends on distances in application. (See page 42.)
LAN Interface Cable	1	Drawing # ED7C818-32. One from G9. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 51.)
AFMDS3 interface cables to ATM switch	2	Drawing # ED7C829-32. Two cables from G1, G2, or G3. Length (50, 100, 200, 300 ft.) depends on distances in application. (See page 51.)
AFMDS3 daisy-chaining coaxial cables from FAST shelf AFMDS3s to first downstream splitter/combiners	4	Drawing # ED7C829-31. Four cables from G1D. Length 1.5 ft. (See page 51.)

Description	Quantity	Part #/Drawing #/Comments
AFMDS3 daisy-chaining coaxial cables from first downstream splitter/combiners to splitter/combiners leading to AFMDS3s on daisy-chained shelf.	4	Drawing # ED7C829-31. Four cables from G10. Length (2, 5, 9, 17 ft.) depends on distances in application (See page 51.)
DS3 splitter/combiners	6	Comcode 406333849. (See page 53.)
AFMDS3 LPA901	2	CLEI Code SLL3SUOFAA. (See page 66.)
ADSL16P LPA416	14	CLEI Code ESPQA2BAAB. (See page 69.)

* A 6B fan assembly is always required when the shelf is equipped with any of these APs:
 ADSL16p LPA416, P32A8 LPA810.

Equipment for Systems with Front and Rear Access

Overview The following table lists the equipment used in RT and COT applications with both front and rear access. Quantity listings are associated with a 7-foot bay.

FAST shelf for RT applications

Equipment	Configuration/Components	Drawing	List/Group/Comcode	CLEI Code	Quantity per Shelf
Bay	7-foot framework	ED8C800-50	G5	Not Applicable	
FAST Shelf with direct power	FAST Shelf with direct power and integral FCM	Discontinued availability. Replaced by J1C282AC			
FAST Shelf with duplicated power	FAST Shelf with duplicated power and replaceable FCM (adaptable to flush mount)	J1C282AB-1	L1	SLM1SW0CRA	
FAST Shelf with direct power	FAST Shelf with direct power and replaceable FCM (adaptable to flush mount)	J1C282AC-1	L1	SLM1SX0CRA	
FAST Shelf Fan Assembly* This is a replacement for the 6A Fan Assembly.	6B Fan Assembly (adaptable for flush mount)	Not Applicable	109107839	Not Applicable	1*
FAST Shelf Baffle*	(adaptable for flush mount)	Not Applicable	848244745	Not Applicable	1†

* Each FAST shelf must have a fan or baffle.

† A fourth baffle may be added to the top of the bay to protect shelf components.

**MDS2 shelf for RT
 applications**

Equipment	Configuration/ Components	Drawing	List/Group/ Comcode	CLEI Code	Quantity per Shelf
MDS2 Shelf (front and rear access)	MDS2 Shelf	J1C286AA-1	L3, Comcode 601945308	SAM2BE0BRA	1 per <i>FAST</i> shelf (if needed)
FiberReach and MDS2 Block (adaptable for flush mount)	FiberReach Wideband Shelf and MDS2 Block	J1C288AA-1	L1	SLM1UY0CRA	1 (if needed)
Baffle is required for MDS2 Shelf or a FiberReach and MDS2 Block (adaptable for all mountings)		Not Applicable	848244778	Not Applicable	1 per MDS2 shelf

**FAST shelf for
COT applications**

Quantity listings are for use in 7-foot, 9-foot, or 11-foot 6-inch bays.

Equipment	Configuration/ Components	Drawing	List/Group/ Comcode	CLEI Code	Quantity per Bay
FAST Shelf with duplicated power	FAST Shelf with duplicated power (equipped with ED7C836-30, G1 replaceable FCM) (adaptable to flush mount)	J1C282AB-1	L1	SLM1SW0CRA	1 to 4 per 9- or 11-foot bay. 1 to 3 in 7-foot bay.
FAST Shelf with direct power	FAST Shelf with direct power (equipped with ED7C836-30, G2 replaceable FCM) (adaptable to flush mount)	J1C282AC-1	L1	SLM1SX0CRA	1 to 4 per 9- or 11-foot bay. 1 to 3 in 7-foot bay.
FAST Shelf Fan Assembly* (adaptable for flush mount) This is a replacement for the 6A Fan Assembly.	6B Fan Assembly	Not Applicable	109107839	Not Applicable	1* per FAST shelf

* A fan is required for each FAST shelf. See *Applications, Planning, and Ordering Guide*, Chapter 4, *COT Arrangements* for more information.

**Alarm test unit
(ATU)**

The ATU provides the alarm and PGTC testing interface in the COT application. The ATU provides the following capabilities:

- Office alarm closures for audible and visual alarms
- Parallel telemetry outputs for the COT
- Interface to the PGTC for channel testing
- Metallic bypass pair connections (or digital bypass pair connections via *Tollgrade MCU-5405* channel units).

Equipment	Configuration/ Components	Drawing	List/Group/ Comcode	CLEI Code	Quantity per Bay
Alarm Test Unit	1A Alarm Test Unit Assembly	Not Applicable	107417537	SAMYAA7BAB	1-4

**MDS2 shelf for
 COT applications**

Equipment	Configuration/ Components	Drawing	List/Group/ Comcode	CLEI Code	Quantity per Shelf
MDS2 Shelf	For COT bay flush mounting, duplicated or direct power, J1C282AB, L1 or J1C282AC, L1	J1C286AA-1	L4	SAM2BE0BRA	One per FAST shelf. As needed.
Baffle* (adaptable for flush mount)		Not Applicable	848244745	Not Applicable	1 per MDS2 shelf.

* A baffle is required for each MDS2 shelf. See *AnyMedia® Access System Applications, Planning, Ordering, and Guide*, Chapter 4, *COT Arrangements* for more information. See the *AnyMedia Access System Installation Manual*, Chapter 8, for more information on COT layouts.

Equipment for Systems with Front-Only Access (RT Applications Only)

Overview

The following table lists components for systems where front-only access is available. Quantity listings are for 7-foot bays.

Equipment	Configuration/Components	Drawing	List/Group/Comcode	CLEI Code	Quantity per Bay
Bay	7-foot framework	ED8C800-50	G5	Not Applicable	1
FAST Shelf	FAST Shelf (front-only access) with direct power with integral FCM	J1C282AA is discontinued availability. Replaced by J1C282AC.			
FAST Shelf	FAST Shelf with duplicated power and replaceable FCM (adaptable to flush mount)	J1C282AB-1	L2	SLM1TW0CRA	1 to 4
FAST Shelf	FAST Shelf with direct power and replaceable FCM (adaptable to flush mount)	J1C282AC-1	L2	SLM1TX0CRA	1 to 4
FAST Shelf Fan Assembly* (adaptable for flush mount) The 6B Fan Assembly is a replacement for the 6A Fan Assembly.	6B Fan Assembly	Not Applicable	109107839	Not Applicable	1 to 4*
FAST Shelf Baffle* (adaptable for flush mount)		Not Applicable	848244745	Not Applicable	1 to 3†

* Each FAST shelf must have a fan or baffle. See *Applications, Planning, Ordering, and Guide, Chapter 4, Single Shelf Arrangement*.

† A fourth baffle may be added to the top of the bay to protect shelf components.

MDS2 shelf

Equipment	Configuration/ Components	Drawing	List/Group/ Comcode	CLEI Code	Quantity
MDS2 Shelf (adaptable for flush mount)	MDS2 Shelf with reversible mounting bracket for CO or RT mount	J1C286AA-1	L4	SAM2BB0BRA	1 per <i>FAST</i> shelf (as needed).
FiberReach and MDS2 Block (adaptable for flush mount)	FiberReach Wideband Shelf and MDS2 Block	J1C288AA-1	L2	SLM1VY0CRA	1 per <i>FAST</i> shelf (as needed).
Baffle is required for MDS2 Shelf or a FiberReach and MDS2 Block (adaptable for flush mount)		Not Applicable	848244778	Not Applicable	1 per MDS2 shelf.

***ConnectReach* Terminal**

***ConnectReach* applications**

This section lists the hardware and software available for a *ConnectReach* Terminal used with the *AnyMedia* Access System RT to offer Integrated Access Terminal capabilities. For *ConnectReach* ordering information, see the *SLC 2000* Access System Applications, Planning, and Ordering Guide, Appendix 1, 363-208-000.

Pre-configured *ConnectReach* terminals

The following table lists ordering information for the basic configurations of the *ConnectReach* Terminal.

Equipment	Configuration/Components	Drawing	List/ Group/ Comcode	Qty
AC -Powered, Metallic VF Lines Only Systems with T1/DSX-1 Interface	Basic <i>ConnectReach</i> System equipped with <ul style="list-style-type: none"> • Network T1/DSX-1 interface • AC power supply with AC-to-DC converter “brick” • Base system software 	ED7C830-30	G1, comcode 601911829	1
DC -Powered, Metallic VF Lines Only T1/DSX-1 Interface	Basic <i>ConnectReach</i> System equipped with <ul style="list-style-type: none"> • Network T1/DSX-1 interface • DC power supply 	ED7C830-30	G2, comcode 601911837	1
AC -Powered, Metallic VF Lines Only Systems with HDSL Interface	Basic <i>ConnectReach</i> System equipped with <ul style="list-style-type: none"> • Network HDSL interface • AC power supply with AC-to-DC converter “brick” • Base system software • One 8-channel current feed circuit card • Standard channel bank software (SW-B) • SNMP, HTTP interface. <p>Software will <i>not</i> allow full support for services from the 10BaseT port, but will allow services from the secondary T1 port if equipped with a Fractional T1 interface card or a Fractional T1/DSP Combination card. Software can be remotely upgraded to support full data capabilities by adding SW-D software.</p>	Not Applicable	comcode 108501297	1

Equipment	Configuration/Components	Drawing	List/ Group/ Comcode	Qty
DC-Powered, Metallic VF Lines Only Systems with HDSL Interface	Basic <i>ConnectReach</i> System equipped with <ul style="list-style-type: none"> • Network HDSL interface • DC power supply • Base system software • One 8-channel current feed circuit card • Standard channel bank software (SW-B) • SNMP, HTTP interface. Software will <i>not</i> allow full support for services from the 10BaseT port, but will allow services from the secondary T1 port if equipped with a Fractional T1 interface card or a Fractional T1/ DSP Combination card. Software can be remotely upgraded to support full data capabilities by adding SW-D software.	Not Applicable	comcode 108501305	1
AC-Powered Systems with Integrated Metallic VF Lines and Data and T1/DSX-1 Interface	Basic <i>ConnectReach</i> System equipped with <ul style="list-style-type: none"> • Network T1/DSX-1 interface • AC power supply with AC-to-DC converter “brick” • Base system software • Frame relay • DHCP • SNMP, HTTP interface • Firewall. System includes all software to provide both metallic VF lines and full data services; however, metallic VF line circuit cards are <i>not</i> included and must be ordered separately (see on page 36).	ED7C830-30	G3, comcode 601911845	1

Equipment	Configuration/Components	Drawing	List/ Group/ Comcode	Qty
DC-Powered Systems with Integrated Metallic VF Lines and Data and T1/DSX-1 Interface	Basic <i>ConnectReach</i> System equipped with <ul style="list-style-type: none"> • Network T1/DSX-1 interface • DC power supply • Base system software • Frame relay • DHCP • SNMP, HTTP interface • Firewall. <p>System includes all software to provide both metallic VF lines and full data services; however, metallic VF line circuit cards are <i>not</i> included and must be ordered separately (see on page 36).</p>	ED7C830-30	G4, comcode 601911852	1
AC-Powered Systems with Integrated Metallic VF Lines and Data and HDSL Interface	Basic <i>ConnectReach</i> System equipped with <ul style="list-style-type: none"> • Network HDSL interface • AC power supply with AC-to-DC converter "brick" • Base system software • Frame relay • DHCP • SNMP, HTTP interface • Firewall. <p>System includes all software to provide both metallic VF lines and full data services; however, metallic VF line circuit cards are <i>not</i> included and must be ordered separately (see on page 36).</p>	Not Applicable	comcode 108501321	1

Equipment	Configuration/Components	Drawing	List/ Group/ Comcode	Qty
<p>DC-Powered Systems with Integrated Metallic VF Lines and Data and HDSL Interface</p>	<p>Basic <i>ConnectReach</i> System equipped with</p> <ul style="list-style-type: none"> • Network HDSL interface • DC power supply • Base system software • Frame relay • DHCP • SNMP, HTTP interface • Firewall. <p>System includes all software to provide both metallic VF lines and full data services; however, metallic VF line circuit cards are <i>not</i> included and must be ordered separately (see on page 36).</p>	<p>Not Applicable</p>	<p>comcode 108501339</p>	<p>1</p>

**Optional
ConnectReach
terminal hardware
and software**

The following table lists optional hardware and software for the *ConnectReach* Terminal.

Hardware	Comcode
4-Channel Current Feed Circuit Card	108342478
8-Channel Current Feed Circuit Card	108342486
4-Channel Current Sink Circuit Card	108342502
Fractional T1 Interface card for Secondary T1 Port. (Needed for Secondary T1/DSX-1 service. *)	108342510
Telco DSP Processor. (This card enables the LCR [†] and BOX [†] feature.)	108342528
Fractional T1 Interface and DSP Combination card. (This card should be used for applications that require a Telco DSP but also require a fractional T1 Interface. *)	108342536
NEBS (GR-63) Installation Kit. Allows the <i>ConnectReach</i> system to meet Telcordia NEBS Level 3 standards (GR-63).	601911860
Fractional T1-V.35 Converter. Provides an interface between a legacy router and the secondary T1/DSX-1 port.	108342544
Hinged Wall Mount Assembly with Extension Brackets	108501354
Mounting Brackets for Telcordia-specific frames. (ANSI-specific are normally shipped with each chassis. These brackets allow mounting in a Telcordia-specific frame.)	108501362
Model BBKUP-2 48-Volt Battery Backup Unit	108860248
10 ft. RJ21 cable with 66 block package [‡]	108585647
30 ft. RJ-48 cross over cable	108585654

* If there are plans to use both secondary T1/DSX-1 services and the LCR feature either now or in the future, order the fractional T1 Interface and DSP Combination card.

† Trademark of VINA Technologies, Inc.

‡ Lucent Technologies also provides the A25B-XSGL series of cables that can be used for a POTS telephone cable. For the A25B-X SGL series, "X" equals the number of feet. For example: A25B-5 SGL, 5-feet, Comcode 100959113; A25B-50 SGL, 50-feet, Comcode 10016765; A25B-150 GSL, 150-feet, Comcode 100959428.

The following table lists optional software for the *ConnectReach* terminal:

Software	Comcode
Data Module (SW-D). When used on conjunction with SW-B, gives the Metallic VF Lines Only System full data capabilities.	108357518
<i>LCR</i> Feature Software. Needed to enable <i>LCR</i> feature; however, this software is also provided with the <i>BOX</i> feature, but must be provisioned separately.	108357534
<i>BOX</i> Feature Software. Needed to enable <i>BOX</i> feature. The <i>LCR</i> feature is also included with the <i>BOX</i> feature, but must be provisioned separately.	108357542

ConnectReach Plus Terminal

ConnectReach Plus applications

The following table lists the hardware and software available for a *ConnectReach Plus* Terminal used with the *AnyMedia* Access System RT to offer Integrated Access Terminal capabilities. For *ConnectReach Plus* ordering information, see the *SLC 2000 Access System Applications, Planning, and Ordering Guide*, Appendix 1, 363-208-000.

Pre-configured ConnectReach Plus terminals

The following table lists ordering information for the pre-configured *ConnectReach Plus* Terminals.

Equipment	Configuration/Components	Drawing	List/ Group/ Comcode	Qty
<i>ConnectReach Plus</i> Chassis with AC Power Supply, configured with T1 Network Interface and 24 FXS Channels	<p><i>ConnectReach Plus</i> Chassis includes the following:</p> <ul style="list-style-type: none"> • CSU/DSU multiplexer • Frame Relay • DHCP • SNMP • IP/IPX Routing • NAT • Firewall • AC Power Supply • Base System Software Data Module <p>Configured with:</p> <ul style="list-style-type: none"> • T1 Network Interface Card • 8 Channel FXS Card • 16 Channel FXS Card 	ED7C843-30	G1, Comcode 108525841 108525866 108525890 108525908	1
<i>ConnectReach Plus</i> with DC Power Supply, configured with T1 Network Interface and 24 FXS Channels	<p><i>ConnectReach Plus</i> Chassis includes the following:</p> <ul style="list-style-type: none"> • CSU/DSU multiplexer • Frame Relay • DHCP • SNMP • IP/IPX Routing • NAT • Firewall • DC Power Supply • Base System Software Data Module <p>Configured with:</p> <ul style="list-style-type: none"> • T1 Network Interface Card • 8 Channel FXS Card • 16 Channel FXS Card 	ED7C843-30	G2, Comcode 108525858 108525866 108525890 108525908	1

Chassis for custom configuration The following table lists chassis to be used for custom configurations.

Equipment	Configuration/Components	Drawing	List/Group/Comcode	Qty
<i>ConnectReach Plus</i> Chassis with AC Power Supply	<p><i>ConnectReach Plus</i> Chassis includes the following:</p> <ul style="list-style-type: none"> • CSU/DSU multiplexer • Frame Relay • DHCP • SNMP • IP/IPX Routing • NAT • Firewall • AC Power Supply • Base System Software Data Module 	Not Applicable	comcode 108525841	1
<i>ConnectReach Plus</i> Chassis with DC Power Supply	<p><i>ConnectReach Plus</i> Chassis includes the following:</p> <ul style="list-style-type: none"> • CSU/DSU multiplexer • Frame Relay • DHCP • SNMP • IP/IPX Routing • NAT • Firewall • DC Power Supply • Base System Software Data Module 	Not Applicable	comcode 108525858	1

**Circuit packs for
custom
configuration**

The following table lists *ConnectReach Plus* circuit packs used for custom configurations or service enhancements.

Equipment	Configuration/Components	List/Group/ Comcode	Qty
Circuit packs	MX-T1, T1 Network Interface Card	108525866	As needed
	MX-USI, Universal Serial Interface Card	108644600	As needed
	MX-4P-FXS, 4-channel FXS card	108525882	As needed
	MX-8P-FXS, 8-channel FXS card	108525890	As needed
	MX-16P-FXS, 16-channel FXS card	108525908	As needed
	MX-4P-FXO, 4-channel FXO card	108525916	As needed
	MX-8P-FXO, 8-channel FXO card	108525924	As needed
	MX-DSP, Telco DSP Processor Card	108525932	Required for LCR or BOX features

Optional The following table lists optional hardware and software for the *ConnectReach*
ConnectReach Plus *Plus* Terminal.
terminal hardware

Equipment	Configuration/Components	List/Group/Comcode	Qty
Optional Hardware See <i>ConnectReach Plus</i> Terminal User's Guide for selection	BBKUP, Battery Backup Unit	108408816	0-1 per Terminal as needed.
	NEBS GR63, NEBS (GR63) installation kit	601911860	
	HNGMNT, Hinged Mount Assembly Kit	108501354	
	BBRKTS, Telcordia rack mount brackets	108501362	
	PWRCRD-HLD, Power Cord Hold Down	108585639	
	RJ21-CBL-10, 10-foot RJ21 cable with 66 block package	108585647	
	RJ48-CBL-30, 30-foot RJ-48 crossover cable	108585654	
	AC Power Supply	108501347	
	DC power cable, 10-foot	108562075	
Software	<i>LCR</i> , Local Call Routing Software	108525981	As needed; requires MX-DSP processor card.
	<i>BOX</i> , Business Office XChange Software (includes <i>LCR</i> software)	108525999	

AnyMedia Access System Cables

Overview

The following tables list cables for use in the *AnyMedia* Access System. Refer to the *AnyMedia* Access System Installation Manual, 363-211-102 for more detailed information on cabling. Quantity listings assume a 7-foot bay.

Voice frequency cables

The table below lists the voice frequency cables that can be used with the *AnyMedia* Access System:

Equipment	Configuration/Components	Length (feet)	AWG	Drawing	List/Group Comcode	Comments/Quantity per Shelf
FAST Shelf Voice Frequency Cables To MDF Crossconnect or Protectors Select one cable length engineered for the specific application.	Voice Frequency Cable, External	50	26	ED7C818-30	G1	16 (one per AP) Not needed for FAST shelf configured as IAT host
		100	26	ED7C818-30	G1A	
		200	26	ED7C818-30	G1B	
		300	26	ED7C818-30	G1C	
		600	26	ED7C818-30	G1D	
E&M Signaling Cables	E & M Cable to MDS2 Backplane Interface	75		ED7C827-32	G3	As needed.
		150		ED7C827-32	G3A	

Power and ringing cables The table below lists the power and ringing cables that can be used with the *AnyMedia* Access System:

Equipment	Configuration/ Components	Length (feet)	AWG	Drawing	List/ Group Comcode	Comments/ Quantity per Shelf
FAST Shelf Ringing Power Cable Select one cable length engineered for the specific application.	Ringing Cable, -20 Hz	50		ED7C818-32	G6	0-1 Optional for COT. Recommended for COT with optional MDS2.
		100		ED7C818-32	G6A	
		200		ED7C818-32	G6B	
		300		ED7C818-32	G6C	
J1C282AA-1 and J1C282AC-1 FAST Shelf Power Cable To power distribution panel or battery distribution fuse (BDF) bay	FAST Shelf Input Power Cable, -48 VDC (direct power)	25		ED7C818-32	G7	1
J1C282AB-1 FAST Shelf Power Cable To power distribution panel or battery distribution fuse (BDF) bay	Power Cable, -48V DC, Power to Shelf (duplicated power)	25	8	ED7C818-32	G13	2

Equipment	Configuration/ Components	Length (feet)	AWG	Drawing	List/ Group Comcode	Comments/ Quantity per Shelf
External ringing shelf input to FAST shelf Select one cable length engineered for the specific application.	Ringing Cable, external J1C182BC-1 ringing shelf to FAST shelf FCM (two cables)	10		ED7C818-32	G19	0-1 RT only Replaces ED7C818-32 G6
		25		ED7C818-32	G19A	
		50		ED7C818-32	G19B	
		100		ED7C818-32	G19C	
ATU Power Cable From ATU to FAST	ATU Power Cable for COT application		14	ED7C818-32	G20	0-1 COT only

**DS1 transport
cables**

The table below lists the DS1 transport cables that can be used with the
AnyMedia Access System:

Equipment	Configuration/ Components	Length (feet)	AWG	Drawing	List/ Group Comcode	Comments/ Quantity per Shelf
FAST Shelf DS1 Cables To DSX Crossconnect Select one cable length engineered for the specific application (one pair from G1* set and one pair from G2* set).	DS1 Cable, External	50	26	ED7C818-32	G1	0 or 2. One needed for transmit, one for receive; 0 needed for ATM xDSL-only RT system
		100	26	ED7C818-32	G1A	
		200	26	ED7C818-32	G1B	
		300	26	ED7C818-32	G1C	
		50	26	ED7C818-32	G2	0 or 2 One needed for transmit, one for receive; 0 needed for ATM xDSL-only RT system
		100	26	ED7C818-32	G2A	
		200	26	ED7C818-32	G2B	
		300	26	ED7C818-32	G2C	

DS1 cables for IATS

The table below lists the DS1 transport cables for IATS:

Equipment	Configuration/ Components	Length (feet)	AWG	Drawing	List/ Group Comcode	Comments/ Quantity per Shelf
IAT Y Cables	Y-Cable (connects to LPS100)	3 feet 10 inches	26	ED7C839-31	G1	1-16 One per IAT Server
IAT Extension Interface Cables (used with IATS2 LPS100) Select one cable length engineered for the specific application.	Extension	50	26	ED7C839-31	G2	2-32 Two per IAT Server
		100	26	ED7C839-31	G2A	
		200	26	ED7C839-31	G2B	
		300	26	ED7C839-31	G2C	
		600	22	ED7C839-31	G2D	
IAT Extension Interface Cables (used with IATS5 LPS105) Select one cable length engineered for the specific application.	Extension	4	26	ED7C839-31	G3	1-16 One per IAT Server
		50	26	ED7C839-31	G4	2-32 Two per IAT Server
		100	26	ED7C839-31	G4A	
		200	26	ED7C839-31	G4B	
		300	26	ED7C839-31	G4C	
		600	22	ED7C839-31	G4D	
DSX-1 Cables* (for <i>ConnectReach</i> , <i>ConnectReach Plus</i> , and IATs)	MX-DSX Cable	50	22	ED7C845-31	G1	0-1 per <i>ConnectReach</i> / <i>ConnectReach Plus</i>
		100	22	ED7C845-31	G1A	
		200	22	ED7C845-31	G1B	
		300	22	ED7C845-31	G1C	

Alarm cablesThe table below lists alarm cables for the *AnyMedia* Access System:

Equipment	Configuration/ Components	Length (feet)	AWG	Drawing	List/ Group Comcode	Comments/ Quantity per Shelf
FAST Shelf Miscellaneous Alarms Cable one per RT Bay To Misc Cross- connect Select one cable length engineered for the specific application	Miscellaneous Alarms	50	26	ED7C818-32	G5	0-1 Not required for COT
		100	26	ED7C818-32	G5A	
		200	26	ED7C818-32	G5B	
		300	26	ED7C818-32	G5C	
J1C282AB-1 and J1C282AC-1 FAST shelf Power/ Alarm Cable To Misc Crossconnect Select one cable length per RT shelf engineered for the specific application.	Power Alarm Cable, FCM to Customer Crossconnect	50	26	ED7C818-32	G12	0-1 Optional for COT. See FAST Shelf Fan and Power Alarm Interface Cable for COTs.
		100	26	ED7C818-32	G12A	
		200	26	ED7C818-32	G12B	
		300	26	ED7C818-32	G12C	
FAST Shelf Fan Alarm Cable To Misc Crossconnect Select one cable length per fan shelf engineered for the specific application.	Fan Alarm Cable	50	24	ED7C818-32	G8	0-1 Optional for COT. See FAST Shelf Fan and Power Alarm Interface Cable for COTs.
		100	24	ED7C818-32	G8A	
		200	24	ED7C818-32	G8B	
		300	24	ED7C818-32	G8C	

Equipment	Configuration/ Components	Length (feet)	AWG	Drawing	List/ Group Comcode	Comments/ Quantity per Shelf
FAST Shelf Fan and Power Alarm Interface Cable for COTs (Used in lieu of ED7C818-32 G12() and ED7C818-32 G8() FAST shelf Power/ Alarm Cable and FAST Shelf Fan Alarm Cable to provide a direct connection to the FAST shelf inputs).	Which do not require alarm multiples between shelves (typical)				848571790	0-1 For COT only.
	Which require alarm multiple between FAST shelves and/or the Miscellaneous Alarm Input Cable G5()				848600920	0-1 Primarily for COT, but can be used in an RT.
Audible Visible Office Alarms To office alarm system Select one cable length engineered for the specific application	Audible/Visible Office Alarm Cable, 50	50	26	ED7C818-32	G16	0-1 RT only
		100	26	ED7C818-32	G16A	
		200	26	ED7C818-32	G16B	
		300	26	ED7C818-32	G16C	

Equipment	Configuration/ Components	Length (feet)	AWG	Drawing	List/ Group Comcode	Comments/ Quantity per Shelf
Remote Telemetry Office Alarms If remote telemetry is needed To Telemetry System Select one cable length engineered for the specific application	Remote Telemetry Office Alarms, J110	50	26	ED7C818-32	G17	0-1 Nonstandard for COT see ATU Telemetry Cable.
		100	26	ED7C818-32	G17A	
		200	26	ED7C818-32	G17B	
		300	26	ED7C818-32	G17C	

Cables for testing The table below lists the cables that can be used for testing in the *AnyMedia* Access System:

Equipment	Configuration/ Components	Length (feet)	AWG	Drawing	List/ Group Comcode	Comments/ Quantity per Shelf
PairGain Test Cable for COT Applications One per bay To PGTC test multiple	PairGain Test Cable for COT applications	50		ED3C861-20	G19	0-1 COT only
		100		ED3C861-20	G20	
ATU Bypass Pair Cable for COT Applications To MDF	1A ATU Bypass Pair Cable for COT applications	75		ED7C723-37	G16	0-1 COT only
		150		ED7C723-37	G17	
		x (specify length)		ED7C723-37	G18	

Equipment	Configuration/ Components	Length (feet)	AWG	Drawing	List/ Group Comcode	Comments/ Quantity per Shelf
ATU Interface Cable for COT Applications From ATU to FAST	ATU Interface Cable for COT applications			ED7C818-32	G21	0-1 COT only
FAST Shelf RTU Link Cable To RTU Select one cable length engineered for the specific application.	RTU Link Cable	50		ED7C818-32	G10	0-1 RT only
		100		ED7C818-32	G10A	
		200		ED7C818-32	G10B	
		300		ED7C818-32	G10C	
FAST Shelf TAP Cable one per RT Bay To Misc Crossconnect Select one cable length engineered for the specific application	TAP Cable, External	50	26	ED7C818-32	G4	0-1 Not required for COT.
		100	26	ED7C818-32	G4A	
		200	26	ED7C818-32	G4B	
		300	26	ED7C818-32	G4C	

**COT-specific
cables**

The table below lists the cables that are specific to the COT in the *AnyMedia* Access System:

Equipment	Configuration/ Components	Length (feet)	AWG	Drawing	List/ Group Comcode	Comments/ Quantity per Shelf
PairGain Test Cable for COT Applications One per bay To PGTC test multiple	<i>PairGain</i> Test Cable for COT applications	50		ED3C861-20	G19	0-1 COT only
		100		ED3C861-20	G20	
ATU Bypass Pair Cable for COT Applications To MDF	1A ATU Bypass Pair Cable for COT applications	75		ED7C723-37	G16	0-1 COT only
		150		ED7C723-37	G17	
		x (specify length)		ED7C723-37	G18	
ATU Interface Cable for COT Applications From ATU to <i>FAST</i>	ATU Interface Cable for COT applications			ED7C818-32	G21	0-1 COT only
ATU Power Cable From ATU to <i>FAST</i>	ATU Power Cable for COT application			ED7C818-32	G20	0-1 COT only
ATU Telemetry Cable for COT Applications If remote telemetry is needed To Telemetry System	1A ATU Telemetry Cable	75		ED7C723-37	G19	0-1 COT only
		150		ED7C723-37	G20	
		x (specify length)		ED7C723-37	G21	

Data transport cables

The table below lists the data cables that can be used in the *AnyMedia* Access System:

Equipment	Configuration/Components	Length (feet)	AWG	Drawing	List/Group Comcode	Comments/Quantity per Shelf
Daisy chain Cables (AFMDS3 cables) Cable to connect multiple data or mixed data and telephony shelves together for daisy-chaining. Select one cable length engineered for the specific application.	Coaxial daisy-chaining cable with right-angle connectors at both ends. G1 cables are for simplex. G10 are for duplex.	5		ED7C829-31	G1	0 for 1 shelf, 2 for 2 shelves, 4 for 3 shelves, and 6 for 4 shelves.
		8		ED7C829-31	G1A	
		12		ED7C829-31	G1B	
		20		ED7C829-31	G1C	
		1.8		ED7C829-31	G1D	RT only
		2		ED7C829-31	G10	0 for 1 shelf, 2 for 2 shelves, 4 for 3 shelves, and 6 for 4 shelves.
		5		ED7C829-31	G10A	
		9		ED7C829-31	G10B	
		17		ED7C829-31	G10C	

Equipment	Configuration/ Components	Length (feet)	AWG	Drawing	List/ Group Comcode	Comments/ Quantity per Shelf
Data I/O Cables (to connect the AFMDS3 LPA900/901 to the ATM network) Select one cable length engineered for the specific application.	I/O Cable, Right angle connectors both ends, 735A coaxial cable	50	26	ED7C829-32	G1	0, 2, or 4 as needed for ATM xDSL application. RT only.
		100		ED7C829-32	G1A	
		200		ED7C829-32	G1B	
	I/O Cable, Right angle connectors both ends, 734A coaxial cable	300	20	ED7C829-32	G2	
	I/O Cable, Right angle connector on AFMDS3 end, straight through (180 degree) connector on panel, 735A coaxial cable	50	26	ED7C829-32	G3	
	I/O Cable, Right angle connector on AFMDS3 end, straight through (180 degree) connector on panel, 735A coaxial cable	100	26	ED7C829-32	G3A	
I/O Cable, Right angle connector on AFMDS3 end, straight through (180 degree) connector on panel, 735A coaxial cable	200	26	ED7C829-32	G3B		

Equipment	Configuration/ Components	Length (feet)	AWG	Drawing	List/ Group Comcode	Comments/ Quantity per Shelf
(Continued) Data I/O Cables (to connect the AFMDS3 LPA900/901 to the ATM network) Select one cable length engineered for the specific application.	I/O Cable, Straight through (180 degree) connector on AFMDS3 end and on panel, 734A coaxial cable	300	20	ED7C829-32	G4	0, 2, or 4 as needed for ATM xDSL application. RT only.
		50		ED7C829-32	G30	
		100		ED7C829-32	G30A	
		200		ED7C829-32	G30B	
		300		ED7C829-32	G40	
DS3 Splitter/Combiner, AFMDS3 to upstream ATM network or between daisy-chained shelves.		3		Commercially available from Mini-Circuits, part # ZFSC-2-1-75	Comcode 406333849	1 for each AFMDS3 LPA901. RT only. Duplex only.
“Y” Dangler Cable (to connect to faceplate of AFMDS1 LPA942 to separate transmit and receive pairs)	I/O Cable. Single right angle connector on AFMDS1 end. Two straight-through (180 degree) connections to G11 cables.	3		ED7C849-30	G10A	1 for each AFMDS1 LPA942. RT only.
AFMDS1 LPA942 Cable Extensions (to connect the two ends of “Y” dangler cables to DSX-1 panel)	Two straight-through (180 degree) connections from “Y” dangles.	50		ED7C849-30	G11	2 for each AFMDS1 LPA942. RT only.
		100		ED7C849-30	G11A	
		200		ED7C849-30	G11B	
		300		ED7C849-30	G11C	
		650		ED7C849-30	G11D	

**LAN and ROC
cables**

The following table lists LAN and ROC cables:

Equipment	Configuration/ Components	Length (feet)	AWG	Drawing	List/ Group Comcode	Comments/ Quantity per Shelf
FAST Shelf LAN Interface Cables To LAN Hub Select one cable length engineered for the specific application	LAN interface cable, LAN drop to <i>FAST</i> shelf	1.5		ED7C829-31	G1D	2 or 4 RT only
		2		ED7C829-31	G10	0 for 1 shelf, 2 for 2 shelves, 4 for 3 shelves, and 6 for 4 shelves.
		5		ED7C829-31	G10A	
		9		ED7C829-31	G10B	
		17		ED7C829-31	G10C	
		50		ED7C818-32	G9	0-1
		100		ED7C818-32	G9A	
		200		ED7C818-32	G9B	
		300		ED7C818-32	G9C	
LAN Interface Cable, <i>FAST</i> shelf backplane to FCM	LAN Interface Cable, <i>FAST</i> shelf backplane to FCM			ED7C818-32	G11	
10Base-T Adaptor/RJ-45 Modular Splitter, Duplex AFMs to LAN	Allows 4 RJ-45 jacks to be connected to one RJ-45 plug.			Commercially available (e.g., from Black Box Corporation #178562)		0-1 RT only. Duplex only.
Crossover 10Base-T Cable AFM to COMDAC	Allows communication with COMDAC through ATM operations channel.	6		ED7C829-32	G6A	0-1 RT only.

MDS2 cables

The table below lists the cables that can be used with the MDS2 in the *AnyMedia* Access System (the MDS2 Shelf and the MDS2 Block use the same cables except for the E&M Signaling Cables):

Equipment	Configuration/ Components	Length (feet)	AWG	Drawing	List/ Group Comcode	Comments/ Quantity per Shelf
MDS2 Power Cables	-48 VDC Power Cable	25		ED7C827-32	G1	1 Only when equipped with the J1C282AA-1 FAST shelf.
MDS2 Power Cable Extensions	Power Cable, -48V DC, Power to MDS2, Extension	6		ED7C818-32	G14	1 When equipped with the J1C282AB-1 or J1C282AC-1 FAST shelf. (Needed only if MDS2 is not directly above FAST shelf, or if flush mount.) Select extension length needed.
		15		ED7C818-32	G14A	
		2		ED7C818-32	G14B	
MDS2 Ringing Cables Select one cable length engineered for the specific application.	Ringing Cable	50		ED7C818-32	G6	1 Only when equipped with the J1C282AA-1 FAST shelf. RT only
		100		ED7C818-32	G6A	
		200		ED7C818-32	G6B	
		300		ED7C818-32	G6C	

Equipment	Configuration/ Components	Length (feet)	AWG	Drawing	List/ Group Comcode	Comments/ Quantity per Shelf
MDS2 Ringing Cable Extensions	Ringing Cable, –20 Hz, Ringing to MDS2, Extension	6		ED7C818-32	G15	1 When equipped with the J1C282AB-1 or J1C282AC-1 FAST shelf. (Needed only if MDS2 is not directly above FAST shelf, or if flush mount.) Select extension length needed.
		15		ED7C818-32	G15A	
		2		ED7C818-32	G15B	
MDS2 VF Cables Select one cable length engineered for the specific application.	Voice Frequency Cable Pairs, for MDS2 with front and rear access,	75		ED7C723-37	G4	1 per shelf. Each cable assembly has four 25-pair connectors, supporting all 96 lines. This cable mates directly to the MDS2 backplane for front and rear access applications.
		150		ED7C723-37	G5	
		x (specify length)		ED7C723-37	G6	
		250		ED7C723-37	G22	
MDS2 VF Cables Select one cable length engineered for the specific application.	Voice Frequency Cable Pairs for MDS2 with front access only	50		ED7C827-30	G1	3 per shelf. This cable mates with the ED7C827-31, Group 1 cable that attaches to the MDS2 shelf backplane. RT only
		100		ED7C827-30	G1A	
		200		ED7C827-30	G1B	
		300		ED7C827-30	G1C	

Equipment	Configuration/ Components	Length (feet)	AWG	Drawing	List/ Group Comcode	Comments/ Quantity per Shelf
MDSU Server Interface Cable Extensions Select one cable length as needed for application	Note: The G2 and G2A are used with PCM link 1 for 5 and 8 ft. extensions, respectively. G3 and G3A are used with PCM link 2 for 5 and 8 ft. extensions, respectively. For example, if you buy an MDS2 shelf to do only 48 lines and you need an extension, buy either a G2 or a G2A, depending on distance from <i>FAST</i> to MDS2.					
	Interface Cable Extender	5		ED7C827-30	G2 and G3	0-1
		8		ED7C827-30	G2A and G3A	0-1
MDS2 Composite Office Clock Cables Select one cable length engineered for the specific application.	Composite Clock Cable	50		ED7C827-32	G2	0-1 Required for Dataport, DDS, and ISDN service
		100		ED7C827-32	G2A	
		200		ED7C827-32	G2B	
		300		ED7C827-32	G2C	
		15		ED7C818-32	G18	For use with the ED7C818-34 G1 kit. The kit is optionally provided with the <i>FAST</i> shelf.
E&M Signaling Cables		75		ED7C827-32	G3	As needed.
		150		ED7C827-32	G3A	

Composite office clock/BITS clock cables

The table below lists the composite clock/BITS clock cables used in the *AnyMedia* Access System:

Equipment	Configuration/Components	Length (feet)	AWG	Drawing	List/Group Comcode	Comments/Quantity per Shelf
FAST shelf Composite Office Clock/BITS Clock Cables To office clock on BITS clock source Select one cable length engineered for the specific application	Composite Office Clock	50		ED7C818-32	G3	0-1
		100		ED7C818-32	G3A	
		200		ED7C818-32	G3B	
		300		ED7C818-32	G3C	
		15		ED7C818-32	G18	Used with Composite Office Clock kit.
Composite Office Clock Kit*	Kit with installation instructions			ED7C818-34	G1	0-2 per bay. One kit can service four <i>FAST</i> and/or <i>MDS2</i> shelves with each Group 1; two Group 1s are required if the bay has from five to eight <i>FAST</i> and/or <i>MDS2</i> shelves. If BITS clock is used, an additional kit is needed in any bay with a total of more than 4 <i>FAST</i> plus <i>MDS2</i> shelves.

* Each ED7C818-34-G1 clock kit comes with four G18 cables. If additional cables are needed in a COT application they must be ordered separately.

**Duplex DS3
 cabling kit**

The table below lists the components that make up the duplex DS3 cabling kit:

Equipment	Configuration/ Components	Drawing/ Comcode	Group
Duplex DS3 cabling kit Comcode for kit 848800611	1 Mounting plate	Comcode 848777272	Not Applicable
	2 Splitter/ combiners (already mounted on plate)	Comcode 406333849	Not Applicable
	8 Coaxial cables	ED7C829-31	G1D
	Coaxial terminators for unused ports	Comcode 408626273	Not Applicable
	Instruction sheet	Comcode 848800587	Not applicable

**Miscellaneous
cable equipment**

The table below lists miscellaneous cable equipment that can be used in the *AnyMedia* Access System:

Equipment	Configuration/ Components	Length (feet)	AWG	Drawing	List/ Group/ Comcode	Quantity per Shelf
ATM xDSL Patchcord (Allows fast upgrade to ATM xDSL services in remote DSL systems)	XDSL7A-03 ATM xDSL patchcord	3		N/A	108 276 536	1 per xDSL circuit or as needed RT only
	XDSL7A-06	6		N/A	108 276 544	
	XDSL7A-012	12		N/A	108 276 551	

Optical fiber cables

The table on the following page lists the optical fiber cables that can be used in the *AnyMedia* Access System:

Equipment	Configuration/Components	Length (feet)	Drawing	List/Group Comcode	Comments/Quantity per Shelf
<p>Optical fiber cable</p> <p>The AFMO circuit pack requires optical fiber jumpers with SC connectors. Two jumpers, a transmit and receive, are needed for each port.</p>	<p>Single fiber</p>	2	N/A	LS1SC-SC-02	<p>0 to 4 per <i>FAST</i> shelf.</p>
		4	N/A	LS1SC-SC-04	
		5	N/A	LS1SC-SC-05	
		10	N/A	LS1SC-SC-10	
		15	N/A	LS1SC-SC-15	
		16	N/A	LS1SC-SC-16	
		20	N/A	LS1SC-SC-20	
		25	N/A	LS1SC-SC-25	
		30	N/A	LS1SC-SC-30	
		35	N/A	LS1SC-SC-35	
		40	N/A	LS1SC-SC-40	
		50	N/A	LS1SC-SC-50	
		55	N/A	LS1SC-SC-55	
		60	N/A	LS1SC-SC-60	
		65	N/A	LS1SC-SC-65	
		70	N/A	LS1SC-SC-70	
		75	N/A	LS2SC-SC-75	
		80	N/A	LS1SC-SC-80	
		85	N/A	LS1SC-SC-85	
		90	N/A	LS1SC-SC-90	
95	N/A	LS1SC-SC-95			
100	N/A	LS1SC-SC-100			

Equipment	Configuration/ Components	Length (feet)	Drawing	List/Group Comcode	Comments/ Quantity per Shelf
Optical fiber cable The AFMO circuit pack requires optical fiber jumpers with SC connectors.	Duplex Fiber	4	N/A	LS2SC-SC-04	4 per each connection to network; 4 per each connection between daisy-chained shelves
		5	N/A	LS2SC-SC-5	
		10	N/A	LS2SC-SC-10	
		15	N/A	LS2SC-SC-15	
		16	N/A	LS2SC-SC-16	
		20	N/A	LS2SC-SC-20	
		25	N/A	LS2SC-SC-25	
		30	N/A	LS2SC-SC-30	
		35	N/A	LS2SC-SC-35	
		40	N/A	LS2SC-SC-40	
		50	N/A	LS2SC-SC-50	
		70	N/A	LS2SC-SC-70	
		100	N/A	LS2SC-SC-100	

**Lightguide
buildout (LBO)**

An interconnection and attenuation network device between optical line interface units (OLIUs) is used to guarantee the proper signal level at the receiver of each OLIU. These devices are optimized for wavelength and single mode or multimode fiber type.

The AFMO circuit pack must use optical fiber cables equipped with SC type connectors. A lightguide buildout (LBO) is required and it must be ordered separately. Lightguide buildouts, including FiberReach lightguide buildouts, are listed in the following two tables.



NOTE:

The A3003 base is required if you use one of the ASCS() caps listed below or one of the A3060() caps listed below to make a complete LBO. Also, a 15 dB LBO is required to loop the AFMO circuit pack back on itself.

Lightguide Buildout (LBO)	Base and Cap Code	Comcode	Connector Type
Base	A3003	106750763	SC
3.0 dB	ASCS3	108314463	SC
3.5 dB	ASCS3.5	108314477	SC
4.0 dB	ASCS4	108314485	SC
4.5 dB	ASCS4.5	108314493	SC
5.0 dB	ASCS5	108314501	SC
5.5 dB	ASCS5.5	108314519	SC
6.0 dB	ASCS6	108314527	SC
6.5 dB	ASCS6.5	108314535	SC
7.0 dB	ASCS7	108314543	SC
7.5 dB	ASCS7.5	108314550	SC
8.0 dB	ASCS8	108314568	SC
8.5 dB	ASCS8.5	108314576	SC
9.0 dB	ASCS9	108314584	SC
9.5 dB	ASCS9.5	108314592	SC
10 dB	ASCS10	108314600	SC
11 dB	ASCS11	108440496	SC
12 dB	ASCS12	108440504	SC
13 dB	ASCS13	108440512	SC
14 dB	ASCS14	108440520	SC
15 dB	ASCS15	108440538	SC
16 dB	ASCS16	108440546	SC
18 dB	ASCS18	108440553	SC
20 dB	ASCS20	108440561	SC

**NOTE:**

The primary difference between the LBOs listed above and the FiberReach LBOs listed below is reflectance.

FiberReach Lightguide Buildout (LBO)	Code	Connection	Comcode	Connector Type
0 dB	A3060	SM-SM	106708951	SC
5 dB	A3060B1	SM-SM	107406142	SC
10 dB	A3060D1	SM-SM	107406159	SC
15 dB	A3060F1	SM-SM	107406167	SC
20 dB	A3060H1	SM-SM	107406175	SC

Circuit Pack Ordering Information

Overview

The following tables list the circuit packs available to configure your *AnyMedia* Access System according to the functions and features to be provided. For further information on the circuit packs and APs, refer to *Applications, Planning, and Ordering Guide*, Chapter 5, Product Descriptions.

For information on the number and type of circuit packs or APs see *Applications, Planning, and Ordering Guide*, Chapter 10, System Planning and Engineering, and Chapter 11, System Planning and Engineering for Data Services.

**FAST shelf circuit
pack information
per shelf**

Configuration/ Components	Group No/ CLEI Code	Drawing/ Apparatus Code	Comcode	Quantity per Shelf/ Comments
Circuit Packs				
COMDAC COM101 (Standard line size)	SLC1CGMCAA	COM101	108369711	1-2. Provides central control and transmission fabric.
COMDAC COM102 (Large line size)	SLC4GG0FAA	COM102	108725961	1-2. RT only. Provides central control and transmission fabric.
IODS1 FAC100	SLC1EJ0CAB	FAC100	107968042	1-6. Provides four independent DSX-1 cross-connect-compatible electrical interfaces.
CTU DTP104	SLTSHK0EAA	DTP104	108919267	0-1. RT only. Supports operations-related functions, including digital test access and TDR testing. (Requires software release 1.7.2.)
AFMDS3 LPA900 (Discontinued availability. Replaced by AFMDS3 LPA901)	SLCUZN0BAA	LPA900	108108275	0-1. RT only. Simplex only. Provides a DS3/ATM 44.736 Mbps feeder facility interface.
AFMDS3 LPA901	SLL3SUOFAA	LPA901	108875097	0-2. RT only. Simplex or duplex. Provides a DS3 ATM 44.736 Mbps feeder facility interface.
AFMO LPA920	SLC2EG0BAA	LPA920	108371246	0-2. RT only. Provides optical OC-3c ATM 155.52 Mbps feeder facility interface.

Configuration/ Components	Group No/ CLEI Code	Drawing/ Apparatus Code	Comcode	Quantity per Shelf/ Comments
995A CROSS COUPLE	SLPQ0HYAAA		108765587	0-1. RT only. Connects active and protection AFMO packs in duplex mode.
AFMDS1 LPA942	SLL4LM0BAB	LPA942	108778275	0-1. RT only. Provides DS1 ATM feeder facility interface with up to 8 DS1s.
MDSU MSU100	SAPQADMBAA	MSU100	108244385	0-2. Server interface between MDS2 shelf and FAST shelf. One per each half of an MDS2 shelf.
IATS2 LPS100	SLCPH0MAAA	LPS100	108447962	1-16. RT only. DS1 - 2-port. Provides interface between IAT and RT.
IAT04 LPS104	SLL3R60FAA	LPS104	108694910	1-16. RT and CO. DS1 - 4-port. Provides interface between IAT and RT.
IATS5 LPS105	SLCPH0NAAA	LPS105	108738006	1-16. RT only. DS1 - 5-port. Provides interface between IAT and RT.

Application Packs

POTS32 LPA300C	SLCI4W3DAA	LPA300C	108467747	1-16. RT only. Supports 32 two-wire loop-start lines.
PROG2W LPA380C	SLC4CCOBAA	LPA380C	108649674	1-16. Supports 32 two-wire loop-start and ground start current lines with coin, DPO signaling, and transmission only signaling.
DPT32CS LPA356	SLTRFE0CAA	LPA356	108461823	1-16. RT only. Supports 32 two-wire DID current sink lines.

Configuration/ Components	Group No/ CLEI Code	Drawing/ Apparatus Code	Comcode	Quantity per Shelf/ Comments
PRCOIN LPA350	E5ISFA0AAA	LPA350	108375502	1-16. Supports 16 two-wire loop-start and ground start current feed lines and 16 coin, loop-start and ground-start feed lines.
PRCOINCS LPA150	SLC3AA0AAA	LPA150	108461815	1-16. COT only. Provides 32 current sink line interfaces to the COT.
ISDN LPU116	PWPQARGAAA	LPU116	107743536	1-16. RT only. Supports 16 subscriber tip/ring appearances for ISDN service.
P4A4 LPA404	E5ICSJ0AAA	LPA404	108431909	1-15.* (1-14 if duplex.) RT only. Combines POTS and ADSL functions into one four-line unit.
P4A4 LPA404B	E51CZJ0AAA	LPA404	108828955	1-15.* (1-14 if duplex.) RT only. Combines POTS and ADSL functions into one four-line unit.
OCU LPA605	SLC2HK0BAA	LPA605	108597444	1-15.* (1-14 if duplex.) RT only. Supports 12 four-wire OCU lines.
ADSL4p LPA400B [†]	E5ICNP0AAA	LPA400B	108603945	1-15.* (1-14 if duplex.) RT only. Provides 4 lines of ADSL services, and, with a POTS AP, 4 lines of POTS services.
ADSL8p LPA408 [†]	E5PQAOVAAD	LPA408	108550005	1-15.* (1-14 if duplex.) RT only. Provides 8 lines of ADSL services, and, with a POTS AP, 8 lines of POTS services.

Configuration/ Components	Group No/ CLEI Code	Drawing/ Apparatus Code	Comcode	Quantity per Shelf/ Comments
ADSL16P LPA416 [‡]	E5PQA2BAAB	LPA416	108708827	1-15.* (1-14 if duplex.) RT only. Provides 16 lines of ADSL services, and, with a POTS AP, 16 lines of POTS services.
SDSL16 LPS716 ^{**}	SLL3B5OFAA	LPS716	108695529	1-15.* (1-14 if duplex.) RT only. Provides 16 subscriber interfaces for SDSL services.
P32A8 LPA810 [†]	SLL3Z90FAA	LPA810	108725854	1-15. (1-14 if duplex.) RT only. Provides 24 POTS-only lines and 8 combined POTS/ ADSL lines in one unit.

* If ATM xDSL service is included, the 16th slot must be used for the AFMDS3 or AFMO circuit pack.

† For ATM xDSL service only.

‡ The ADSL16p LPA416 requires a 6B fan assembly.

** When using a Lucent/Ascend 50S CellPipe modem, the SDSL16 AP requires a CPE WAN cable with a RJ11 connector that has a straight cable, tip-to-tip and ring-to-ring.

MDS2 Circuit Pack and Channel Unit Ordering Information

Overview The following table lists the CPs and CUs available for use in the MDS2 shelf.

Configuration/ Components	Group No/ CLEI Code	Drawing/ Apparatus Code	Comcode	Quantity/ Comments
Circuit Packs				
Power and Test Unit (PTU) BDJ200B	SAPQACWBAD	BDJ200B	108067240	1-2. Supplies DC power and ringing voltage to CUs.
Metallic Shelf Controller MSC100	SACPHM0BAA	MSC100	108244377	1-2. Controller interface between CUs on the MDS2 shelf and the MDSU on the FAST shelf.

Nonprovisionable Channel Units for MDS2 Shelf

Circuit Packs				
Enhanced Business Service (EBS) (<i>Tollgrade</i> *) SPQ328	SAC1AJ0AAA	SPQ328	Not Applicable	COT only. Provides EBS to customers served by a DMS-100 switch.
Quad EBS P-Phone (<i>Tollgrade</i>) SPQ429	SAC1AK0AAA	SPQ429	Not Applicable	RT only. Provides EBS to customers served by a DMS-100 switch.

Manually Provisionable Channel Units for MDS2 Shelf

Circuit Packs				
Dual Ringing Repeater AUA45B	5SCUUJ5AAB	AUA45B	105717987	Provides two-wire, private line, point-to-point manual ring service.
Private Line Automatic Ring (PLAR) AUA75	5SC1FF2AAA	AUA75	108229758	Provides two-wire, private line, point-to-point automatic ring service.

Configuration/ Components	Group No/ CLEI Code	Drawing/ Apparatus Code	Comcode	Quantity/ Comments
2-Wire Switched 56-Kb/s DPX AUA200	5SCTB0DAAA	AUA200	107392243	RT only. Used in a two-wire end-link of a switched 56 kbps digital data service.
RS-232 DSU Dataport AUA232	5SCTCB0AAA	AUA232	107050445 RT only	Used in an end-link of a DDS private line data service.
Metallic Channel Unit (<i>Tollgrade</i>) <i>MCU</i> [†] -5205	5SC26TVAAA	<i>MCU</i> -5205	Not Applicable	Enables a variety of DC and AC alarm and telemetry services.
Digital Bypass Pair (<i>Tollgrade</i>) <i>MCU</i> -5405	5SC26T02AB	<i>MCU</i> -5405	Not Applicable	Provides a LoopCare compatible digital bypass pair when metallic bypass pair is not available.
ISDN BRITE Teltrend AUA293I2	5SC4BK8EAA	Teltrend AUA293I2	Not Applicable	Provides one <i>ANSI</i> standard U-DSL over a non-loaded two-wire loop.
ADTRAN Total Reach DDS Dataport (DDS-DP)	Not Applicable	Not Applicable	Not Applicable	RT only. Provides interface between DS0 timeslot and the two-wire metallic loop to the customer premises.

Electronically Provisionable Channel Units for MDS2 Shelf

Dual DS0 DP <i>SPQ</i> 334	5SC3240AAA	<i>SPQ</i> 334	107590127	COT only. Used in an end-link of a DDS private line data service.
E <i>SPOTS</i> CU CS <i>SPQ</i> 442	SCA1AH0AAA	<i>SPQ</i> 442	107100562	Provides transmission treatment for two-wire special service circuits.
Two-wire current feed <i>SPQ</i> 443	SAC1AEHAAB	<i>SPQ</i> 443	107098873	COT only. Provides transmission treatment for two-wire special service circuits.

Configuration/ Components	Group No/ CLEI Code	Drawing/ Apparatus Code	Comcode	Quantity/ Comments
4-Wire CS (FXO/TDM) SPQ444	SAC1BF0AAB	SPQ444	107226730	A current sink pack that provides four-wire VF special services.
Dual OCU Dataport SPQ452	5SCTFFHAAB	SPQ452	107967085	Used as an end-link of a DDS private line data service.
4-Wire E&M/PLR SPQ454	SAC1BG0AAB	SPQ454	107226748	Requires E&M cabling. CU 1-12: P201 CU 13-24: P201 & P202 MDS2 shelves that are intended to support E&M or PLR service require the installation of additional cables (P201, P202) for the added signaling leads.
4-Wire CF (FXS/ETO/DX) AUA41B	5SC3HJEAAA	AUA41B	106988082	As needed. A current feed unit used primarily in non-locally switched loop- and ground-start special services, nonswitched private lines, and PBX tie trunks.

* *Tollgrade* is a registered trademark of Tollgrade Communications, Inc.

† *MCU* is a registered trademark of Tollgrade Communications, Inc.

**Recommended
sparing**

The following table is a guideline for stocking spare packs on a per shelf basis for the *FAST* Shelf and MDS2 Shelf, as applicable for your system application. Sparing recommendations are 10% each of the total deployed packs. See on page 66 and on page 70 for the ordering codes.

Configuration/Components	Quantity
Circuit Packs	
IODS1 FAC100	1
COMDAC COM101	1
COMDAC COM102	1
CTU DTP104	1
AFMDS3 LPA900 (Discontinued availability. Replaced by AFMDS3 LPA901)	1
AFMDS3 LPA901	1
AFMO LPA920	1
AFMO LPA942	1
MDSU MSU100	1
IATS2 LPS100	1
IATS5 LPS105	1
PTU BDJ200	1
PTU BDJ200B	1
MSC MSC100	1
Application Packs	
POTS32 LPA300C	10%
PROG2W LPA380C	10%
PRCOIN LPA350	10%
PRCOINCS LPA150	10%
DPT32CS LPS356	10%
ISDN LPU116	10%
ADSL4p LPA400B	10%
P4A4 LPA404	10%
P4A4 LPA404B	10%
OCU LPA605	10%

Configuration/Components	Quantity
ADSL8p LPA408	10%
ADSL16P LPA416	10%
SDSL16 LPS716	10%
Channel Units	
As configured (see page 70)	10%

Software

System software

The software products listed below are available for the *AnyMedia* Access System. (See also Appendix B, “Release Compatibilities” for information on which controllers, APs, and AMI [GSI] releases are compatible with which software releases. The Narrowband/Broadband Compatibility, also in Appendix B, indicates the high-level compatibilities between NB and BB software releases.)



NOTE:

NB refers to **COMDAC** (telephony) releases; **BB** refers to **AFM** (data) releases.

A right-to-use license is required for each shelf or PC on which an *AnyMedia* Access System software product is used.

Each *AnyMedia* Access System software product is provided on a CD-ROM. You may purchase as many CD-ROMs as necessary to support your operations. For example, you may use the CD-ROM to load on more than one system, or establish a server to provide access to the software. However, you would still need to purchase a right-to-use license for each shelf or PC accessing the software.

Release 1.2.2 software features

Release 1.2.2 software supports:

- Basic integrated RT
- MDS2 or FiberReach and MDS2 Block feature.

(See “Release 1.2.2 AOS-NB Software” on page 77 for more details and ordering information.)

Release 1.2.2.5.3 software features

Release 1.2.2.5.3 software provides the *AnyMedia* Access System to be configured with direct inward dialing/dial pulse terminate (DID/DPT) features. (See “Release 1.2.2.5.3 AOS-NB Software” on page 78 for more details and ordering information.)

Release 1.2.3.1 software features

Release 1.2.3.1 software allows for the *AnyMedia* Access System to be configured as a COT application. (See “Release 1.2.3.1 AOS-NB Software” on page 78 for more details and ordering information.)

Release 1.7.0 software features

Release 1.7.0 software enables the *AnyMedia* Access System to be configured as an IAT host for the *ConnectReach* and *ConnectReach Plus* Terminals **only**. (See “Release 1.7.0 AOS-NB Software” on page 79 for more details and ordering information.)

Release 1.7.1.0 software features

Release 1.7.1.0 offers the ability to combine basic telephony features and DID/DPT capabilities of R1.2.2.5.3 with the IAT host capabilities of R1.7.0. (See “Release 1.7.1.0 AOS-NB Software” on page 79 for more details and ordering information.)*

Release 1.7.1.1 software features

Release 1.7.1.1 *combines* the features of R1.2.2.5.3 Narrowband Telephony with the R1.7.0 IAT Host[†] capability on *one* FAST Shelf. Standard line size is supported via the COM101 and IATS2 LPS100. (See “Release 1.7.1.1 AOS-NB Software” on page 80 for more details and ordering information.)

Release 1.7.2.0 software features

Release 1.7.2.0 offers large line size capabilities with the COM102 and IATS5 LPS105 (DS1 5-port) along with the combination features of R1.7.1.1. (See “Release 1.7.2.0 AOS-NB Software” on page 80 for more details and ordering information.)

Release 1.7.2.1.0 software features

Release 1.7.2.1.0 allows the *AnyMedia* Access System software to support 3 GR-303 VRTs. (See “Release 1.7.2.1.0 AOS-NB Software” on page 81 for more details and ordering information.)

Release 1.7.3 (Data) software features

Release 1.7.3 (Data) software allows the *AnyMedia* Access System to be configured for DSL applications through the AFM. (See “Release 1.7.3 (Data) AOS-BB Software” on page 82 for more details and ordering information.)

Release 1.11 (Data) software features

Release 1.11 (Data) software allows the *AnyMedia* Access System to be configured for DSL applications through the AFMDS3 and AFMO. (See “Release 1.11 (Data) AOS-BB Software” on page 82 for more details and ordering information.)

* R1.7.1.0 is a controlled release, for SBC only.

† IAT Host capability was offered previously on Release 1.7.0.

Release 1.11.2 (Data) software features

Release 1.11.2 (Data) software allows the *AnyMedia* Access System to use two new data APs (LPA810, and LPA417). (See "Release 1.11.2 (Data) AOS-BB Software" on page 83 for more details and ordering information.)

Release 1.13 (Data with duplex) software features

Release 1.13 (Data with duplex) software allows the *AnyMedia* Access System to utilize pack protection by using two AFMDS3 LPA901 packs, and to utilize both pack and facility protection by using two AFMO LPA920 packs. (See "Release 1.13 (Data with Duplex) AOS-BB Software" on page 83 for more details and ordering information.)

Operations software and licensing for telephony services

AnyMedia Operations Software for Narrowband Services (AOS-NB) is the software product that resides on the COMDAC and controls the telephony services for the *AnyMedia* Access System. All COMDACs are delivered with this software product pre-installed.

Customers purchasing a COMDAC need to order J1C282XA-1, List 2 for software in the unlikely event that a recovery process is required. In addition, customers also need to order the J1C282XA-1 List M1R and J1C282XA-1 List P2R for the right-to-use licenses. Both right-to-use licenses are required for every *AnyMedia* Access System shelf that runs this software.

Customers purchasing a COMDAC upgrade from R1.0 to R1.2.2 need to order J1C282XA-1 List 2 for software and List P2S for the right-to-use licenses.

Release 1.2.2 AOS-NB Software

Release	Description	Ordering Information
R1.2.2	<i>AnyMedia</i> Operations Software for Narrowband Services (AOS-NB), R1.2.2 CD-ROM	J1C282XA-1, List 2
ALL	AOS-NB Right-to-Use License, Operating System	J1C282XA-1, List M1R
R1.2.2	AOS-NB Right-to-Use License, Narrowband Telephony R1.2.2	J1C282XA-1, List P2R
R1.2.2	AOS-NB Right-to-Use License, Narrowband Telephony Upgrade R1.0 to R1.2.2	J1C282XA-1, List P2S

R1.2.2.5.3 operations software for telephony services (DID/DPT)

Customers requiring DID/DPT application features need to order J1C282XA-1, List 6 for software, and J1C282XA-1, List M1R and List P6R for right-to-use licenses. Both right-to-use licenses are required for every *AnyMedia* Access System shelf that runs software.

Customers purchasing a COMDAC upgrade from R1.2.2 to R1.2.2.5.3 need to order J1C282XA-1 List 6 for software and List P6S for the right-to-use licenses.

Release 1.2.2.5.3 AOS-NB Software

Release	Description	Ordering Information
R1.2.2.5.3	<i>AnyMedia</i> Operations Software for Narrowband Services (AOS-NB), R1.2.2.5.3 CD-ROM	J1C282XA-1, List 6
ALL	AOS-NB Right-to-Use License, Operating System	J1C282XA-1, List M1R
R1.2.2.5.3	AOS-NB Right-to-Use License, Narrowband Telephony R1.2.2.5.3	J1C282XA-1, List P6R
R1.2.2.5.3	AOS-NB Right-to-Use License, Narrowband Telephony Upgrade R1.2.2 to R1.2.2.5.3	J1C282XA-1, List P6S

R1.2.3.1 operations software for telephony services

Customers requiring COT application features need to order J1C282XA-1, List 5 for software, and J1C282XA-1, List M1R and J1C282XA-1, List P5R for the right-to-use licenses. Both right-to-use licenses are required for every *AnyMedia* Access System shelf that runs this software.

Release 1.2.3.1 AOS-NB Software

Release	Description	Ordering Information
R1.2.3.1	<i>AnyMedia</i> Operations Software for Narrowband Services (AOS-NB), R1.2.3.1 CD-ROM	J1C282XA-1, List 5
ALL	AOS-NB Right-to-Use License, Operating System	J1C282XA-1, List M1R
R1.2.3.1	AOS-NB Right-to-Use License, Narrowband Telephony R1.2.3.1	J1C282XA-1, List P5R

R1.7.0 operations software for telephony services

Customers requiring IAT server host features need to order J1C282XA-1, List 3 for software, and J1C282XA-1 List M1R and J1C282XA-1 List P3R for the right-to-use licenses. Both right-to-use licenses are required for every *AnyMedia* Access System shelf that runs this software.

Release 1.7.0 AOS-NB Software

Release	Description	Ordering Information
R1.7.0	Operations Software for Narrowband Services (AOS-NB), R1.7.0 CD-ROM	J1C282XA-1, List 3
ALL	AOS-NB Right-to-Use License, Operating System	J1C282XA-1, List M1R
R1.7.0	AOS-NB Right-to-Use License, Narrowband Telephony R1.7.0	AOS-NB Right-to-Use License, Narrowband Telephony R1.7.0

1.7.1.0 operations software for telephony services*

Release 1.7.1.0 AOS-NB Software

Release	Description	Ordering Information
R1.7.1.0	Operations Software for Narrowband Services (AOS-NB), R1.7.1.0 CD-ROM	J1C282XA-1, List 8
ALL	AOS-NB Right-to-Use License, Operating System	J1C282XA-1, List M1R
R1.7.1.0	AOS-NB Right-to-Use License, Narrowband Telephony R1.7.1.0	J1C282XA-1, List P8R
R1.7.1.0	AOS-NB Right-to-Use License, Narrowband Telephony Upgrade R1.2.2.5.3 or R1.7.0, to R1.7.1.0	J1C282XA-1, List P8S

1.7.1.1 operations software for telephony services

Customers requiring IAT server host features and/or standard telephony narrowband services with DID/DPT on one *FAST* shelf need to order J1C282XA-1, List 7 for software, and J1C282XA-1 List M1R and J1C282XA-1 List P7R for the right-to-use licenses. Both right-to-use licenses are required for every *AnyMedia* Access System shelf that runs this software.

* R1.7.1.0 is a controlled release for SBC only.

Customers purchasing a COMDAC upgrade from R1.2.2.5.3 or R1.7.0 need to order J1C282XA-1, List 7 for software and List P7S for the right-to-use licenses.

Release 1.7.1.1 AOS-NB Software

Release	Description	Ordering Information
R1.7.1.1	Operations Software for Narrowband Services (AOS-NB), R1.7.1.1 CD-ROM	J1C282XA-1, List 7
ALL	AOS-NB Right-to-Use License, Operating System	J1C282XA-1, List M1R
R1.7.1.1	AOS-NB Right-to-Use License, Narrowband Telephony R1.7.1.1	J1C282XA-1, List P7R
R1.7.1.1	AOS-NB Right-to-Use License, Narrowband Telephony Upgrade R1.2.2.5.3 or R1.7.0 to R1.7.1.1	J1C282XA-1, List P7S

R1.7.2.0 operations
software for
telephony services

Release 1.7.2.0 AOS-NB Software

Release	Description	Ordering Information
R1.7.2.0	Operations Software for Narrowband Services (AOS-NB), R1.7.2.0 CD-ROM	J1C282XA-1, List 9
ALL	AOS-NB Right-to-Use License, Operating System	J1C282XA-1, List M1R
R1.7.2.0	AOS-NB Right-to-Use License, Narrowband Telephony R1.7.2.0	J1C282XA-1, List P9R
R1.7.2.0	AOS-NB Right-to-Use License, Narrowband Telephony Upgrade R1.2.2.5.3 or R1.7.0, R1.7.1.1 to R1.7.2.0	J1C282XA-1, List P9S

**R1.7.2.1.0
operations
software for
telephony services**

Release 1.7.2.1.0 AOS-NB Software

Release	Description	Ordering Information
R1.7.2.1.0	Operations Software for Narrowband Services (AOS-NB), R1.7.2.1.0 CD-ROM	J1C282XA-1, List 10
ALL	AOS-NB Right-to-Use License, Operating System	J1C282XA-1, List M1R
R1.7.2.1.0	AOS-NB Right-to-Use License, Narrowband Telephony R1.7.2.1.0	J1C282XA-1, List P10R
R1.7.2.1.0	AOS-NB Right-to-Use License, Narrowband Telephony Upgrade R1.2.2.5.3 or R1.7.0, R1.7.1.1 to R1.7.2.1.0	J1C282XA-1, List P10S

**Operations
software and
licensing for data
(broadband)
services**

Operations Software for Broadband Services (AOS-BB) is the software product that resides on the AFM and controls the ATM xDSL services for the *AnyMedia* Access System. All AFM circuit packs are delivered with a specified release of software pre-installed.

With the purchase of an *AnyMedia* shelf, a Right-to-Use license for the operational software for broadband services, along with the Application Software Right-to-Use fee must be purchased.

The Operational software comes loaded on the *AnyMedia* AFM application pack. CD-ROMs may be purchased, but are only required when software is upgraded to a current release or in the unlikely event that a recovery process is required.

Release 1.1.2 AOS-BB Software

Release	Description	Ordering Information
R1.1.2	Operation Software for Broadband Services (AOS-BB), R1.0 CD-ROM	J1C282XB-1, List 1
ALL	AOS-BB Right-to-Use License, Operating System	J1C282XB-1, List M1R
R1.1.2	AOS-BB Right-to-Use License, ATM xDSL	J1C282XB-1, List P1R

Release 1.7.3 (Data) AOS-BB Software

Release	Description	Ordering Information
R1.7.3 (Data)	Operation Software for Broadband Services (AOS-BB), R1.7.3 CD-ROM	J1C284XB-1, List 1
ALL	AOS-BB Right-to-Use License, Operating System	J1C282XB-1, List M1R
R1.7.3 (Data)	AOS-BB Right-to-Use License, Application Software	J1C284XB-1, List P1R

Release 1.11 (Data) AOS-BB Software

Release	Description	Ordering Information
R1.11 (Data)	Operation Software for Broadband Services (AOS-BB), R1.11 CD-ROM	J1C284XB-1, List 2
ALL	AOS-BB Right-to-Use License, Operating System	J1C282XB-1, List M1R
R1.11 (Data)	AOS-BB Right-to-Use License, Application Software	J1C284XB-1, List P2R

Release 1.11.2 (Data) AOS-BB Software

Release	Description	Ordering Information
R1.11.2 (Data)	Operation Software for Broadband Services (AOS-BB), R1.11.2 CD-ROM	J1C284XB-1, List 3
ALL	AOS-BB Right-to-Use License, Operating System	J1C284XB-1, List M1R
R1.11.2 (Data)	AOS-BB Right-to-Use License, Application Software	J1C284XB-1, List P3R

Release 1.13 (Data with Duplex) AOS-BB Software

Release	Description	Ordering Information
R1.13 (Data with Duplex)	Operation Software for Broadband Services (AOS-BB), R1.13 CD-ROM	J1C284XB-1, List 4
ALL	AOS-BB Right-to-Use License, Operating System	J1C282XB-1, List M1R
R1.13 (Data with Duplex)	AOS-BB Right-to-Use License, Application Software	J1C284XB-1, List P4R

Upgrades

Customers may opt to purchase upgrades for additional *AnyMedia* applications.

Upgrades in software and licenses must be purchased for broadband services. Customers can upgrade from a specific release of software. Use the ordering information from the following table to upgrade to the release desired.

Upgrades for AOS-BB software

From Release	To Release	Description	Ordering Information
R1.1.2	R1.7.3 (Data)	AOS-BB Right-to-Use License, Application Software Upgrade	J1C284XB-1, List U1R
R1.7.3 (Data)	R1.11 (Data)	AOS-BB Right-to-Use License, Application Software Upgrade	J1C284XB-1, List U2R
R1.1.2	R1.11 (Data)	AOS-BB Right-to-Use License, Application Software Upgrade	J1C284XB-1, List U3R
R1.11 (Data)	R1.11.2 (Data)	AOS-BB Right-to-Use License, Application Software Upgrade	J1C284XB-1, List U2R
R1.11.2 (Data)	R1.13 (Data with Duplex)	AOS-BB Right-to-Use License, Application Software Upgrade	J1C284XB-1, List U3R

***AnyMedia*
Management
Interface software**

The *AnyMedia* Management Interface is used to provision a single network element (NE) at a time through the GSI, while simultaneously monitoring alarms of multiple NEs through its Network Maintenance Manager. The Management interface is made up of the following:

- GSI - The GSI for the *AnyMedia* Access System is a software tool that provides a graphical interface to support the OAM&P functions of the system.
- Network Maintenance Manager - The Network Maintenance Manager is a software tool used to monitor alarms over multiple NEs. The Network Maintenance Manager allows a technician to choose which NEs to monitor, to filter viewed alarms, and to manage the display of these alarms.

The Network Maintenance Manager is accessed remotely by choosing it through the Management Interface, or through a button or pull-down menu on the GSI. In this way, a technician may go back and forth from multiple to single NEs as needed to check and administer the alarms.

The *AnyMedia* Maintenance Manager software, J1C282XJ-1, List 1 is the software product that must be loaded onto your PC to interface with the *AnyMedia* Access System for R1.2.2, R1.2.2.5.3, R1.2.3.1, R1.7.0, R.1.7.1.1, and R1.7.2.0 OAM&P telephony services; and R1.7.3 (Data), R1.11 (Data), and R1.13 (Data with Duplex) data services.

Customers must also purchase the J1C282XJ-1, List M1R and List P1R for right-to-use licenses for every PC on which the software product is loaded.

Release	Description	Ordering Information
R2.2.1	<i>AnyMedia</i> Management Interface, R2.2.1 CD-ROM	J1C282XJ-1, List 2
ALL	<i>AnyMedia</i> Management Interface Right-to-Use License, Operating System	J1C282XJ-1, List M1R
R2.2.1	<i>AnyMedia</i> Management Interface Right-to-Use License, Application	J1C282XJ-1, List P2R

**Navis *AnyMedia*
 Element
 Management
 System (EMS) R1.7**

The *Navis AnyMedia* EMS software provides remote and centralized OAM&P support for a network of *AnyMedia* Access Systems. Each managed system is defined as a network element (NE) and consists of the *AnyMedia* main shelf, the MDS2 shelf and subtending integrated access devices (IADs).

The *Navis AnyMedia* EMS software runs on a Sun Workgroup Server with Solaris 2.6. Both the Enterprise 250 (E250) and the Enterprise 450 (E450) are certified server platforms. The recommended maximum number of NEs for a fully configured E250 is 100. For a fully configured E450, the maximum is 600.

The *Navis AnyMedia* EMS graphical user interface (GUI) runs on a separate hardware platform. Sun Ultra 5 Workstation and IBM compatible personal computers running *Windows NT* are certified client platforms. The Sun Ultra 5 Workstation is recommended for Systems Administrators. Others users' GUIs can be installed on any certified platform. The *Navis AnyMedia* EMS software can support up to 30 simultaneous users. Hardware configurations and Sun ordering codes can be found in the *Navis AnyMedia* User Service Manual.

Appropriate RTU licenses must be ordered for NEs that are managed by the *Navis AnyMedia* EMS.

In addition to managing the *AnyMedia* Access System in a stand-alone configuration, the *Navis AnyMedia* EMS software provides an open CORBA-based Northbound Interface/Applications Programming Interface (API) to allow integration into higher level Operations Support Systems. This includes SNMP fault management documentation and runtime software.

Navis AnyMedia EMS R1.7 software

Description	Network Management Division Product Code	Ordering Information
<p><i>Navis AnyMedia</i> EMS Server software R1.7.x; includes 1 GUI client and documentation</p> <p>Includes R1.7.x <i>Navis AnyMedia</i> EMS application and GUI software on a 4-disk CD-ROM set, the license to install the application software on one (1) Sun server, the license to install the GUI software on one (1) Sun workstation or PC, paper copies of the customer documentation and the customer documentation CD-ROM. Customer documentation includes the User Service Manual and the Software Release Description.</p>	ANC-ANYM-17-SOL-NAR	300318946
<p><i>Navis AnyMedia</i> EMS R 1.7.x, Workstation license for Solaris</p> <p>License to install the R1.7.1 GUI software on one (1) Sun Workstation</p>	ANC-ANYM-17-SOL-WS-NAR	300318896
<p><i>Navis AnyMedia</i> EMS R 1.7.x, Workstation license for Windows NT</p> <p>License to install the R1.7.1 GUI software on one (1) IBM compatible Windows Personal Computer</p>	ANC-ANYM-17-NT-WS-NAR	300318920
<p><i>Navis AnyMedia</i> EMS software option for <i>AnyMedia</i> Access System</p> <p>License to manage one (1) <i>AnyMedia</i> Access System including the main shelf, its MDS2 shelf, and subtending IADs. One (1) license is required for each Network Element managed by <i>Navis AnyMedia</i> EMS software.</p>	ANYM-SO-ANC	300318573
<p><i>Navis AnyMedia</i> software API to allow interfaces from an Operations Support System to the <i>Navis AnyMedia</i> EMS License to access the Northbound Interface (NBI)/ Application Programming Interface (API) of <i>Navis AnyMedia</i> software to allow communication with Operations Support Systems. One (1) license is required per Sun server.</p>	ANC-ANYM-17-OSS	300318623

<p><i>Navis AnyMedia</i> software API usage license per Access System (ANYM-SO-ANC is required) License to manage one (1) <i>AnyMedia</i> Access System by means of an OSS communicating through the <i>Navis AnyMedia</i> EMS Northbound Interface (NBI) Application Programming Interface (API). This license applies to OSS' other than the <i>Navis</i> platform OSS'. One (1) license is required per NE.</p>	<p>ANYM-SO-ANC-OSS</p>	<p>300318649</p>
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The following table provides the list of the items required to manage 300 *AnyMedia* Access Systems. In this example, one Sun server is used to manage the 300 NEs. There is one system administrator and 15 other users. The System Administrator GUI runs on a Sun Workstation. All other user GUIs are installed on IBM compatible PCs.

Quantity	Description	Ordering Information
1	<p><i>Navis AnyMedia</i> EMS Server software R1.7.x; includes 1 GUI client and documentation</p> <p>Includes R1.7.1 <i>Navis AnyMedia</i> application and GUI software on a 4-disk CD-ROM set, the license to install the application software on one (1) Sun server, the license to install the GUI software on one (1) Sun workstation or PC, paper copies of the customer documentation and the customer documentation CD-ROM. Customer documentation includes the User Service Manual and the Software Release Description.</p>	300318946
0 (Included in 300318946)	<p><i>Navis AnyMedia</i> EMS R 1.7.x, Workstation license for Solaris (Included in 300318946)</p> <p>License to install the R1.7.1 GUI software on one (1) Sun Workstation</p>	300318896
15	<p><i>Navis AnyMedia</i> EMS R 1.7.x, Workstation license for Windows NT</p> <p>License to install the R1.7.1 GUI software on one (1) IBM compatible Windows Personal Computer</p>	300318920
300	<p><i>Navis AnyMedia</i> software option for <i>AnyMedia</i> Access System</p> <p>License to manage one (1) <i>AnyMedia</i> Access System including the main shelf, its MDS2 shelf and subtending IADs.</p>	300318573

Navis AnyMedia EMS R1.9 software In addition to the releases supported by *Navis AnyMedia* EMS R1.7.1, *Navis AnyMedia* EMS R1.9 software provides full support for the *AnyMedia* Access System release 1.7.2, enhanced support for R1.7 (Data), and partial support for R1.11 (Data). Release support details, pricing, and ordering information for R1.9 can be obtained from Shibasheesh Chakraborty (Bohemia, NY; 631 468-4865, shibasheesh@lucent.com).

Navis AnyMedia EMS R1.9 software

Description	Network Management Division Product Code	Ordering Information
<p><i>Navis AnyMedia</i> Server software R1.9, which includes 1 GUI client and documentation. Includes 1.9 <i>Navis AnyMedia</i> EMS application and GUI software on a four-disk CD-ROM set, the license to install the application software on one Sun server, the license to install the GUI software on one Sun workstation or PC, paper copies of the customer documentation and the customer documentation CD-ROM. Customer documentation includes the User Service Manual and the Software Release Description.</p>	ANC-ANYM-19-SOL-NAR	300325966
<p><i>Navis AnyMedia</i> EMS R1.9 GUI workstation license for Solaris license to install the R1.9 GUI software on one Sun workstation.</p>	ANC-ANYM-19-SOL-WS-NAR	300325982
<p><i>Navis AnyMedia</i> EMS R1.9 Workstation license for Windows NT. License to install the R1.9 GUI software on one IBM compatible Windows personal computer.</p>	ANC-ANYM-19-NT-WS-NAR	300326006
<p><i>Navis AnyMedia</i> EMS software option for <i>AnyMedia</i> Access System. License to manage one <i>AnyMedia</i> Access System.</p>	ANYM-SO-ANC	300318573
<p><i>Navis AnyMedia</i> EMS R1.9 software API to allow interfaces from an Operations Support System to the <i>Navis AnyMedia</i> EMS. License to access the Northbound Interface (NBI) /Application Programming interface (API) of the <i>Navis AnyMedia</i> EMS to allow communication with Operations Support Systems. One license is required per Sun server.</p>	ANC-ANYM-19-OSS	300326030
<p><i>Navis AnyMedia</i> EMS R1.9 software API usage license per Access System (ANYM-SO-ANC is required). License to manage one <i>AnyMedia</i> Access System by means of an OSS communicating through the <i>Navis AnyMedia</i> EMS Northbound Interface (NBI) /Application Programming Interface (API). This license applies to OSS' other than the <i>Navis</i> platform OSS'. One license is required per <i>AnyMedia</i> Access System.</p>	ANYM-SO-ANC-OSS	300318649

Navis AnyMedia
EMS maintenance

The *Navis AnyMedia* EMS software comes with a three-month warranty period. After this warranty period, if the customer wants support and upgrades (post-warranty maintenance), he/she needs to purchase a maintenance contract. Typically, the customer will purchase post-warranty maintenance at the time of licensing.

The maintenance contract entitles the customer to upgrades for the core product, and updates and patches for one year. If the maintenance contract is purchased before the warranty expires, maintenance begins the day after the expiration.

The maintenance contract can be renewed annually.

There are two types of maintenance contract:

- Gold Standard level maintenance—Support nine hours a day, five days a week, excluding Lucent holidays.
 - Platinum level service—Support twenty-four hours a day, seven days a week.
-

Outside Plant Ordering Information

Overview The *AnyMedia* Access System RT is available in fully equipped, Type 82A or Type 52B or E outside plant cabinets. Also available is the 92C type indoor electronics cabinet. The 82A, 52B, 52E, and 92C cabinets are described below.

Avaya 82A cabinet details Ordering details for this cabinet equipped with *AnyMedia* Access Systems and associated equipment are found in Lucent Document 631-600-290, *82-Type Outdoor Electronics Cabinets*. Additional cabinet and cabinet configurations may be available. Account representatives can be contacted with specific requests.

The cabinet will support the following:

- From one to three *AnyMedia* FAST Shelves, which will support up to 1536 lines in the cabinet
 - An optional MDS2 shelf supporting up to 96 special service circuits
 - A bulk power and ringing system, including a fuse and alarm panel, a battery circuit breaker panel, and batteries
 - A choice of DDM-2000 or other multiplexers
 - An optional DDM Plus T-1 carrier extension shelf
 - Choices of protector groups, DSX cross-connects, T1 cross-connects, and fiber terminating equipment.
-

Avaya 52B cabinet details Ordering details for this cabinet equipped with *AnyMedia* Access Systems and associated equipment are found in Lucent Document 631-600-293, *52B and 52E Outdoor Electronics Cabinets*.

The cabinet will support the following:

- One FAST shelf supporting up to 512 VF lines (or up to 256 ISDN lines)
- A DDM-2000 SONET multiplexer
- A DSX panel supporting up to 68 DS1 terminations
- A CPS 2000 power plant, which supplies power and ringing. Type 12IR125, IR30, or IR40 batteries may be used
- A fan unit
- An optional MDS2 shelf supporting up to 96 special service circuits
- An optional DDM-Plus (T1 extension) shelf

- Six 100-pair 307 type protector blocks
 - An alarm interface panel.
-

Avaya 52E-type cabinet

Ordering details for this cabinet equipped with *AnyMedia* Access Systems and associated equipment are found in Lucent Document 631-600-293, *52B and 52E Outdoor Electronics Cabinets*.

This cabinet is similar to the 52B-Type cabinet, with the addition of the following:

- A second *FAST* shelf
 - Seven additional 100-pair 307 type protector blocks.
-

Avaya 92C cabinet details

The 92C type indoor electronics cabinet is described in Lucent Document 640-250-307, *92-Type Indoor Electronics Cabinets Description, Installation, and Operations*.

- One *AnyMedia FAST* shelf that supports 512 lines (or up to 256 ISDN pairs)
 - A DDM-2000 OC-3 SONET multiplexer
 - A CPS 2000 power shelf with a ringing supply
 - 8-hour battery backup
 - Splice areas for both fiber optic and copper cable
 - A fuse and alarm panel
 - Fans
 - DSX-1 cross-connects
 - Optional single MDS2 shelf or optional DDM-Plus shelf (only one). The optional MDS2 shelf supports up to 96 special service circuits.
-

Documentation

AnyMedia Access System documentation The following documents support the *AnyMedia Access System*. (When documents are ordered, the most recent issue will be sent.)

Document Title	9-Digit Document Code	Comcode
AnyMedia® Access System <i>Applications, Planning, and Ordering Guide</i> (paper manual)	363-211-101	108298639
AnyMedia® Access System <i>Feature Supplement, MDS2 Shelf Configuration</i> (paper manual)	363-211-106	108864521
AnyMedia® Access System <i>Feature Supplement, Integrated Access Terminal</i> (paper manual)	363-211-127	Not Applicable
AnyMedia® Access System <i>Feature Supplement, Central Office Terminal</i> (paper manual)	363-211-128	Not Applicable
AnyMedia® Access System <i>ConnectReach Terminal User Service Manual</i> (paper manual)	363-211-129	Not Applicable
AnyMedia® Access System <i>ConnectReach Plus Terminal User Service Manual</i> (paper manual)	363-211-130	108484650
AnyMedia® Access System <i>Installation Manual</i> (paper manual)	363-211-102	108298654
AnyMedia® Access System <i>Documentation CD-ROM</i> . Includes: <ul style="list-style-type: none"> • <i>Commands and Procedures</i> in on-line format (HTML) • Adobe pdf format versions of: <ul style="list-style-type: none"> — <i>Installation Manual</i> — <i>Applications, Planning, and Ordering Guide</i> — <i>AnyMedia Access System Feature Supplements</i> — <i>82-Type Outdoor Electronics Cabinet</i> — <i>52-Type Outdoor Electronics Cabinet</i> 	363-211-103	108361155
AnyMedia® Access System <i>Floor Plan Data Sheet</i>	FPD 801-450-111-1	Not Applicable

AnyMedia Access
System software
release
descriptions (SRD)

Document Title	Release Number	9-Digit Document Code
Narrowband Services		
<i>AnyMedia</i> ® Access System Software Release Description (SRD) R1.2.1, Issue 1, May 1999	1.2.1	363-211-124
<i>AnyMedia</i> ® Access System Software Release Description (SRD) R1.2.2.2, Issue 1 (COM101 Update), December 1999	1.2.2.2	363-211-132
<i>AnyMedia</i> ® Access System Operations Software Release Description (SRD) R1.2.2.3, Issue 1, January 2000	1.2.2.3	363-211-160
<i>AnyMedia</i> ® Access System Operations Software Release Description (SRD) R1.2.2.5, Issue 1, January 2000	1.2.2.5	363-211-162
<i>AnyMedia</i> ® Access System Operations Software Release Description (SRD) R1.2.2.5.1, Issue 1, May 2000	1.2.2.5.1	363-211-163
<i>AnyMedia</i> ® Access System Software Release Description (SRD) R1.2.2.5.2, Issue 1, May 2000	1.2.2.5.2	363-211-166
<i>AnyMedia</i> ® Access System Software Release Description (SRD) 1.2.2.5.3, Issue 1, December 2000	1.2.2.5.3	363-211-176
<i>AnyMedia</i> ® Access System Operations Software Release Description (SRD) R1.2.3, Issue 1, January 2000	1.2.3	363-211-161
<i>AnyMedia</i> ® Access System Software Release Description (SRD) R1.2.3.1, Issue 1, July 2000	1.2.3.1	363-211-168
<i>AnyMedia</i> ® Access System Operations Software Release Description (SRD) R1.2.3.2, Issue 1, October 2000	1.2.3.2	363-211-173
<i>AnyMedia</i> ® Access System Software Release Description (SRD) 1.7.0 (IATS), December 1999	1.7.0	363-211-131
<i>AnyMedia</i> ® Access System Software Release Description (SRD) 1.7.1, June 2000	1.7.1	363-211-165
<i>AnyMedia</i> ® Access System Software Release Description (SRD) 1.7.1.1, Issue 1, September 2000	1.7.1.1	363-211-170

Document Title	Release Number	9-Digit Document Code
<i>AnyMedia® Access System Software Release Description (SRD) 1.7.1.2, Issue 1, March 2001</i>	1.7.1.2	363-211-179
<i>AnyMedia® Access System Software Release Description (SRD) R1.7.2, Issue 1, September 2000</i>	1.7.2	363-211-171
<i>AnyMedia® Access System: System Release Description for Software (SRD) 1.7.2.1, Issue 1, March 2001</i>	1.7.2.1	363-211-177
<i>AnyMedia® Access System Software Release Description (SRD) 1.9, May 2000</i>	1.9	363-211-164
ConnectReach and ConnectReach Plus Terminals		
<i>AnyMedia® Access System Software Release Description (SRD) R3.4 ConnectReach Plus Terminal, issue 1, January 2000</i>	3.4.29	363-211-180
<i>AnyMedia® Access System ConnectReach™ Terminal: System Release Description for Software Release 3.6.5, Issue 1, March 2001</i>	3.6.5	363-211-181
<i>AnyMedia® Access System ConnectReach Plus™ Terminal: System Release Description for Software Release 2.0, Issue 1, April 2001</i>	2.0	363-211-183
<i>AnyMedia® Access System ConnectReach Plus™ Terminal: System Release Description for Software Release 4.1.1, Issue 1, January 2001</i>	4.1.1	363-211-182
Broadband Services		
<i>AnyMedia® Access System Operations Software for Broadband Services (AOS-BB) Software Release Description (SRD) R1.1.2, Issue 1</i>	1.1.2	363-211-105
<i>AnyMedia® Access System Operations Software for Broadband Services (AOS-BB) Software Release Description (SRD) R1.1.2-20, Issue 1, July 2000</i>	1.1.2-20	363-211-169
<i>AnyMedia® Access System Software Release Description (SRD) R1.7.3 (Data), Issue 1, June 2000</i>	R1.7.3 (Data)	363-211-167
<i>AnyMedia® Access System Operations Software for Broadband Services (AOS-BB) Software Release Description (SRD) R1.7.3.2 (Data), Issue 1, November 2000</i>	R1.7.3.2 (Data)	363-211-172

Document Title	Release Number	9-Digit Document Code
<i>AnyMedia® Access System Operations Software for Broadband Services (AOS-BB) Software Release Description (SRD) R1.7.3.3.3-010 (Data), Issue 1, November 2000</i>	R1.7.3.3. -010 (Data)	363-211-175
<i>AnyMedia® Access System Operations Software for Broadband Services (AOS-BB) Software Release Description (SRD) R1.11.0.1-020 (Data), Issue 1, November 2000</i>	R1.11.0. 1-020 (Data)	363-211-174
<i>AnyMedia® Access System Operations Software for Broadband Services (AOS-BB) Software Release Description (SRD) R1.11.0.1-031 (Data), Issue 3, January 2001</i>	R1.11.0. 1-031 (Data)	363-211-174

**DDM-2000
customer
documentation**

Document Title	9-Digit Document Code	Comcode
DDM-2000 FiberReach Multiplexer <i>Applications, Planning, and Ordering Guide</i>	363-206-300	108646563
DDM-2000 FiberReach Multiplexer, Wideband/Narrowband Shelf TARP Release 3, <i>User/Service Manual</i>	363-206-305	108865700
DDM-2000 FiberReach Multiplexer <i>Installation Manual</i>	363-206-310	108091620

**Navis AnyMedia
EMS software
documentation**

Ordering information for *Navis AnyMedia* EMS (formerly the *AnyMedia* Element Manager) is currently being updated to reflect its new position as part of the suite of *Navis* Management Systems.

Document Title	9-Digit Document Code	Comcode
<i>AnyMedia</i> ® Access System, Element Manager for Narrowband Services Release 1.5, Functional Description, Issue 2, September 1999	363-211-401	108588740
<i>AnyMedia</i> ® Access System, Element Manager for Narrowband Services Release 1.5, User Service Manual, Issue 2, September 1999	363-211-402	108588757
<i>AnyMedia</i> Element Manager (AEM-BB) Documentation CD-ROM	363-211-323	108628199

Power and Ringing Supplies

General

External sources are required to provide DC power and superimposed AC ringing voltages to the RT Bay. COT applications will normally be powered from the CO power system via a BDFB panel. Typical examples for remote terminal applications are the LINEAGE® Power Plant Cabinet Power Systems (J85500R-1 and J85582R-2) and the power shelves that were designed for SLC Series 5 Digital Loop Carrier. See the *AnyMedia® Access System Applications, Planning, and Ordering Guide*, Chapter 10 for more information about power and ringing.

Power shelf and CPS

The Lucent Technologies J855500R-1 power shelf can be used to supply power to the *AnyMedia* Access System shelf. It should be equipped with three or four ES660 type rectifiers and two ES621 type ringing generators. This J85582R-2 CPS Shelf should be equipped with three ES460 type rectifiers and two ES421 type ringing generators.

Power and ringing shelves

The following equipment is required for the Lucent Technologies J85500R-1 CPS shelf.

Qty	Code	Description
1	J85500R-1	CPS Shelf
2	ES621	Ringing Generator (100 VA)
1	ES646B	Monitor & Control Unit
3 or 4	ES660	Rectifier (12.5 Amp)

The following apparatus and equipment is required for the Lucent Technologies J85582R-2 CPS2000 shelf.

Qty	Code	Description
1	J85582R-2	CPS2000 Shelf
2	ES421	Ringing Generator (50 VA)
1	ES446	Monitor & Control Unit
3	ES460	Rectifier (7.2 Amp)

The Lucent Technologies J1C182BC-1 Ringing Shelf, equipped with 3C ringing generator(s) and AUG3 ringing control unit(s) can be ordered to furnish the -20 Hz ringing voltage to the *AnyMedia* Access System RT shelf. The J1C182BD-1 bulk power shelf, equipped with 336A1 rectifiers, 3H1 ringing generators, AUG3

ringing control unit, and AUG4B battery interface unit, is not part of the *AnyMedia* Access System but can be used to furnish –48 VDC power and –20 Hz ringing to the remote terminal. The following ringing generator equipment is required for the J1C182BC-1 shelf.

Qty	Code	Description
1	J1C182BC-1	Ring Shelf
2 or 4	3C1	Ringing Generator (1 Amp)
1 or 2	AUG3	Ringing Control Unit

To connect the J1C182BC-1 ringing shelf to the *FAST* shelf ringing input, use cable ED7C818-32, Group 19 (10 feet), 19A (25 feet), 19C (50 feet), or 19C (100 feet).

Ringling

At least two external ringing supplies in a protected system should be provided, each supplying superimposed –20Hz ringing current to the *AnyMedia* Access System shelf.

The J85582R-2 cabinet power system (CPS2000) can power one *FAST* Shelf only.

Fuses

The following fuses are used in the fuse and alarm panel for the *FAST* shelf and the MDS2 shelf.

Description	COMCODE
15A fuse for –48V DC inputs at <i>FAST</i> shelf (F1/F2)	408026243
10A fuse for –48VDC (M1/M2) (J1C282AB-1 shelf)	408107480
2A fuse for the fan at <i>FAST</i> shelf	408026250
1A fuse for the –20 Hz ringing supply at <i>FAST</i> shelf	408026268
5A fuse for –48V DC inputs at MDS2 shelf	408026276
0.5A fuse for –20 Hz ringing supply at MDS2 shelf	408026284

Ringling generators

Ringling generators should be selected according to the number of customer lines (see in *Applications, Planning, Ordering, and Guide, Chapter 10, FAST Shelf Powering*).

- For a 50 VA requirement, use Lucent Technologies ringing generator ES620.
- For a 100 VA requirement, use Lucent Technologies ringing generator ES621.

Ringing filter

If the ringing supply to the *FAST* shelf is not in the same bay or an immediately adjacent bay, a ringing filter is recommended to provide lightning protection. The ringing filter is always required for a COT application.

Qty	COMCODE	Description
1	108504994	Ringing Filter Assembly

Bulk power shelf

The following components are required for the J1C182BD-1 bulk power shelf.

Qty	Code	Description
1	J1C182BD-1	Power Shelf
2	3H1	Ringing Generator (1 Amp)
1	AUG3	Ringing Control Unit
1	AUG4B	Battery Interface Unit
5	336A1	Rectifier (5.75 Amp)

Replaceable Components

FCM assembly

This assembly is part of the *FAST* shelf as ordered, but may be replaced if necessary during the life of the product. The J1C282AB-1 and J1C282AC-1 *FAST* shelves have replaceable FCMs. The J1C282AA-1 shelf does not.

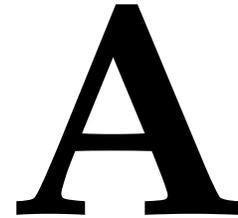
Description	Drawing	Group
FCM Assembly with duplicated power for J1C282AB-1 <i>FAST</i> shelf	ED7C836-30	G1
FCM Assembly with direct power for J1C282AC-1 <i>FAST</i> shelf	ED7C836-30	G2

MDS2 block

This assembly is part of the MDS2 Block as ordered, but may be replaced if necessary during the life of the product, if the MDS2 Block is rear accessible.

Description	Drawing	Group
MDS2 Block (mounted within FiberReach and MDS2 block shelf)	J1C286AB-1	L1

Items No Longer Available



Discontinued Items

Overview

The following items have been discontinued and are no longer available:

Equipment	Description	CLEI Code	Explanation/Replacement
J1C282AA <i>FAST</i> Shelf	<i>FAST</i> Shelf (front-only access) with direct power with integral FCM	Not Applicable	Replaced by J1C282AC.
CTU DTP101	Channel Test Unit	SLC1DHKCAA	Supported operations-related functions (no digital test access). Replaced first by CTU DTP102, then by DTP104.
CTU DTP102	Channel Test Unit	SLTSAF0EAA	Supported operations-related functions (no digital test access). Replaced by CTU DTP104.
ADSL4P LPA400	ADSL4P AP	E51CNJNAAA	Discontinued
ADSL4P LPA400B	ADSL4P AP	E51CNP0AAA	Discontinued
ADSL4P LPA400C	ADSL4P AP	E51CXP0AAC	Discontinued
AFMDS3 LPA900	AFMDS3 Circuit Pack	SLCUZN0BAA	Replaced by AFMDS3 LPA901

Equipment	Description	CLEI Code	Explanation/Replacement
6A <i>FAST</i> Shelf Fan Assembly	6A Fan Assembly	Not Applicable	Replaced by 6B fan assembly
AUG4 Battery Interface Unit	Battery Interface Unit	5SPQ10PAAB	Replaced by AUG4B battery interface unit
<i>AnyMedia</i> ADSL Element Manager Documentation CD-ROM 363-211-303	<i>AnyMedia</i> Access System Element Manager software documentation	Not Applicable	Replaced by 363-211-323

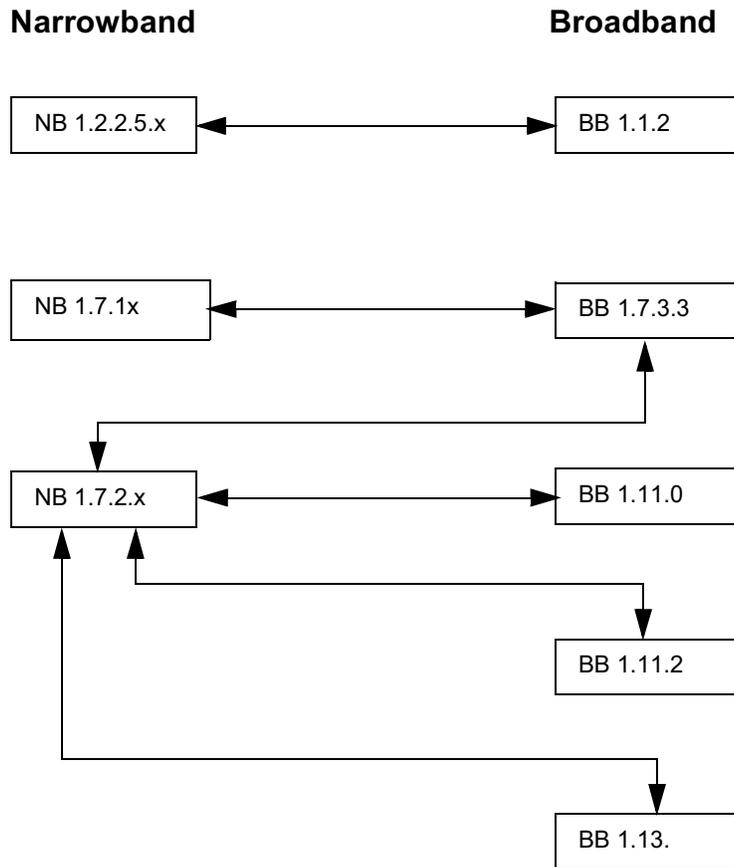
Release Compatibilities

B

Narrowband/Broadband Compatibility

Overview

The graph below indicates the high-level compatibilities between narrowband (NB) and broadband (BB) software releases.



Compatibility Tables

Overview

The tables below list the compatibilities among the following items for the individual narrowband and broadband releases:

- Software loads
- Controllers supported
- Application packs
- GSI software

**Narrowband
 compatibilities**

Software Release	Controllers Supported (Unless otherwise noted, each release supports <i>only</i> the controllers listed below.)	APs (Unless otherwise noted, each release supports <i>only</i> the APs listed below.)	AMI (GSI) Software Version
1.2.2.5.x	<ul style="list-style-type: none"> • COM101 	<ul style="list-style-type: none"> • DTP100 • DTP101* • DTP102* • FAC100 • LPA300 • LPA300C • LPA350 • LPA356 • LPA380 • LPA380C • LPA404B • LPU116 	2.0.0
1.2.3.2	<ul style="list-style-type: none"> • COM101 	<ul style="list-style-type: none"> • DTP101* • LPA150 • LPA380 • MSU100 	AMI 2.2.1
1.7.0	<ul style="list-style-type: none"> • COM101 	<ul style="list-style-type: none"> • DTP101* • FAC100 • LPS100 	GSI Ver. 1.7.0
1.7.1.x	<ul style="list-style-type: none"> • COM101 	<ul style="list-style-type: none"> • DTP101* • DTP102* • FAC100 • LPA300 • LPA300C • LPA350 • LPA356 • LPA380 • LPA380C • LPA404B • LPA408 • LPA414 • LPA900 • LPS100 • LPS716 • LPU116 • MSU100 	GSI R2.1.0 Build 39

Software Release	Controllers Supported (Unless otherwise noted, each release supports <i>only</i> the controllers listed below.)	APs (Unless otherwise noted, each release supports <i>only</i> the APs listed below.)	AMI (GSI) Software Version
1.7.2.0	<ul style="list-style-type: none"> • COM101 • COM102 	<ul style="list-style-type: none"> • DTP101* • DTP102* • FAC100 • LPA300 • LPA300C • LPA350 • LPA356 • LPA380 • LPA380C • LPA400* • LPA404B • LPA408 • LPA414 • LPA416 • LPS100 • LPS104 • LPS105 • LPS716 • LPU116 • MSU100 	AMI R2.2.1-Build 25

Software Release	Controllers Supported (Unless otherwise noted, each release supports <i>only</i> the controllers listed below.)	APs (Unless otherwise noted, each release supports <i>only</i> the APs listed below.)	AMI (GSI) Software Version
1.7.2.x	<ul style="list-style-type: none"> • COM101 • COM102 	<ul style="list-style-type: none"> • DTP101* • DTP102* • DTP104 • FAC100 • LPA300 • LPA300C • LPA350 • LPA356 • LPA380 • LPA380C • LPA404B • LPA408 • LPA414 • LPA416 • LPA605 • LPA810 • LPS100 • LPS104 • LPS105 • LPS716 • LPU116 • MSU100 	AMI R2.2.1 Build 58

* Discontinued availability.

Broadband compatibilities

Software Release	Controllers Supported	APs Supported	GSI Software Version
1.1.2	<ul style="list-style-type: none"> LPA900 (DS3)* 	<ul style="list-style-type: none"> LPA400* LPA400B* LPA404B 	GSI Broadband 2-15
1.7.3.3	<ul style="list-style-type: none"> LPA900 (DS3)* 	<ul style="list-style-type: none"> LPA400* LPA400B* LPA400C* LPA404B LPA408 LPS716 	AMI 2.2.1 Build 34
1.11.0	<ul style="list-style-type: none"> LPA900 (DS3)* LPA901 (DS3) 	<ul style="list-style-type: none"> LPA404B LPA408 LPA416* LPA419 LPS716 	NAR: AMI 2.2.1
1.11.2	<ul style="list-style-type: none"> LPA901 (DS3) LPA942 (DS1 IMA) LPA920 (OC-3c) 	<ul style="list-style-type: none"> LPA400* LPA400B* LPA400C* LPA404B LPA408 LPA416 LPA419 LPS810 LPS716 	AMI 2.2.1
1.13.0	<ul style="list-style-type: none"> LPA901 (DS3) LPA942 (DS1 IMA) LPA920 (OC-3c) 	<ul style="list-style-type: none"> LPA400* LPA400B* LPA400C* LPA404B* LPA408 LPA416 LPA810 LPA417 LPA419 LPA716 	AMI 2.2.1

* Discontinued availability.

Acronyms

A

A/D	analog/digital
AAL	ATM adaptation layer
ABN	active balance network
ABSBH	average busy season busy hour
AC	alternating current
ACD	automatic call distributor
ACO	alarm cutoff
ADPCM	adaptive differential PCM
ADSL	asymmetric digital subscriber line
ADSL-R	ADSL transceiver unit—remote end
AFM	ATM feeder multiplexer
AID	access identifier
AIP	access interface platform or alarm interface panel (not used as ac)
AIS	alarm indication signal
AIS-L	alarm indication signal-line
AIU	access interface unit
ALC	automatic loss control; automatic level/loss compensation
ALC5	automatic loss compensation—5
ALIT	automatic line insulation test
AMI	alternate mark inversion
ANSI	American National Standards Institute
AOS	<i>AnyMedia</i> Access System operations software
AP	application pack
APOG	applications, planning, and ordering guide
ARM	access resource manager
ASCII	American standard code for information interchange
ATM	asynchronous transfer mode

ATU	alarm test unit
ATU-C	ADSL transceiver unit - Central Office
ATU-R	ADSL transceiver unit - remote end
AWG	American wire gauge

B

B8ZS	bipolar with eight zeros substitution
BAIU	broadband access interface unit
BB	broadband
BDFB	battery distribution fuse bay
BER	bit error ratio
BIST	built-in self-test
BITS	building integrated timing supply
BRI	basic rate interface
BRITE	basic rate interface transmission extension
BT	bridged tap
BWM	broadcast warning message

C

C/N	carrier-to-noise ratio
CAC	connection admission control
CASTL	customer advocate system test lab
CBR	constant bit rate
CC	clear channel
CCITT	international telephone and telegraph consultative committee
CCN	customer change notice
CCS	hundred call seconds
CD-ROM	compact disk - read only memory
CDV	cell delay variation
CDVT	cell delay variation tolerance
CEV	controlled environment vault
CF	current feed

CIT	craft interface terminal
CL	center line
CLF	carrier line failure
CLP	cell loss priority
CMI	control mode idle
CMIS	common management information service
CN	change notice
CO	central office
COACH	customized online aid for customer help
COMDAC	common data and control
COPM	customer operations and program management
CORRCNT	corrected HEC error counter
COT	central office terminal
CPE	customer premises equipment
CPFT	customer premises facility terminal
CPI	calling party identification
CPS	cabinet power system
CR	critical
CRC	cyclic redundancy check
CRV	call reference value
CS	current sink
CSA	carrier serving area
CSMD/CD	carrier sense multiple access/collision detection
CSS	controlled slip seconds
CSS-P	controlled slip seconds-path
CSU	channel service unit
CTS	customer technical support
CTU	craft test unit
CU	channel unit
CV	coding violation
CV-L	coding violation-line

CV-LFE	coding violations-line - far end
CV-P	coding violation-path
CV-S	coding violations-section

D

DACS	digital access cross-connect system
dB	decibel
dBm	decibel referenced to one milliwatt
DC	direct current
DCD	received line signal detector
DCE	data communication equipment
DCLU	digital carrier line unit
DCN	data communication network
DCS	digital cross-connect system
DCTP	direct current test pair
DDL	delivered data link
DDM	digital data multiplexer
DDS	digital data services
DFI	digital facilities interface
DHCP	dynamic host configuration protocol
DID	direct inward dialing
DLC	digital loop carrier
DLCI	data link connection identifier
DM	degraded minute
DMT	discrete multitone
DMU	digital measurement unit
DNIS	dialed number identification service
DNS	domain name service
DNUS	digital network unit-subscriber
DOD	direct outward dialing
DP	data port or dial pulse
DPFU	dual power feed unit

DPO	dial pulse originate
DPT	dial pulse terminate
DRAM	dynamic random access memory
DS0	digital signal, level 0
DS1	digital signal, level 1
DS3	digital signal, level 3
DSL	digital subscriber line
DSP	digital signal processor
DSR	DCE ready
DSU	data service unit
DSX	digital signal cross-connect
DSX-1	digital signal cross-connect, level 1
DSX-3	digital signal cross-connect, level 3
DTC	digital trunk controller
DTE	data terminal equipment
DTMF	dual tone multifrequency
DU	data unit
DX	duplex

E

EBS	enhanced business service
EC	error correction
ECI	equipment catalog item
E&M	ear and mouth
EM	element manager
EMC	electromagnetic compatibility
EMF	electromotive force
EMI	electromagnetic interference
EMS	element management system
EOC	embedded operations channel
EPD	echo path delay
ERL	echo return loss

ES	errored seconds
ES-L	errored second-line
ESD	electrostatic discharge
ESF	extended superframe
ES-L	errored seconds-line
ES-LFE	errored seconds-line far end
ES-P	errored seconds-path
ES-S	errored seconds - section
ETO	equalized transmission only

F

4TDM	four-wire tandem
FC	failure count
FC-L	failure counts-line
FC-LFE	failure counts-line - far end
FCC	Federal Communications Commission
FCM	fuse circuit module
FDI	feeder distribution interface
FE	far end
FEAC	far end alarm and control
FELP	far end loopback
FITL	fiber in the loop
FITs	failure in 10 ⁹ hours
fpm	flashes per minute
FSA	first site application
FSAN	full service access network
FTP	file transfer protocol
FX	foreign exchange
FXO	foreign exchange office
FXS	foreign exchange station

G

GA	general availability
GCRA	generic cell rate algorithm
GOS	grade of service
GPB	general purpose bus
GPC	general purpose communications
GR-303	Telcordia Technologies, Inc. Standard GR-303
GSFN	generic signaling function
GSI	graphical system interface
GTL	Gunning transceiver logic
GTSIP	global technical support information platform

H

HBER	high BER
HCS	header check sequence
HDBH	high day busy hour
HDLC	high-level data link control
HDSL	high bit rate digital subscriber line
HDSL2	high bit rate digital subscriber line-second generation
HDT	host digital terminal
HEC	header error code
HTTP	hypertext transfer protocol
Hz	hertz

I

I/O	input/output
IAD	integrated access device
IAT	integrated access terminal
IATSI	IAT system interface
IBERT	integrated bit error test
ICLE	initial customer laboratory evaluation
ICP	IMA control protocol

ID	identifier
IDCU	integrated digital carrier unit
IDLC	integrated digital loop carrier
IDT	integrated digital terminal
IEEE	Institute of Electrical and Electronics Engineers
IETF	Internet Engineering Task Force
IMA	inverse multiplexing for ATM
IMLT	integrated mechanized loop testing
INA	integrated network access
INIT	initialization/diagnostic
IP	Internet protocol
IPX	Internet packet exchange
IS	in service
ISDL	integrated subscriber digital line
ISDN	integrated services digital network
ISO	international organization for standards
ISP	Internet service providers
ITU	International Telecommunications Union
IV	ICP cell violation
IV-IMA	IPC violations (count of errored, invalid or missing IPC cells)
IXC	interexchange carrier

K

kbits	kilobits per second
kBps	kilobytes per second
kHz	kilohertz
kW	kilowatt

L

LAN	local area network
LAPD	link access protocol D-channel
LBO	lightguide build out

LCD	loss of cell delineation
LDS	local digital switch
LED	light-emitting diode
LFACS	loop facilities assignment and control system
LFP	logical feeder port
LLN	logical line number
LMI	local management interface
LOCD	loss of cell delineation
LOF (lof)	loss of frame
LOFA	loss of frame alignment
LOP	loss of pointer
LOS (los)	loss of signal
LOST	loss of signal timeout
LSAS	line side answer supervision
LTD	local test desk
LTF	loop test frame
LTS	loop test system
LULT	line unit network termination
LUNT	line unit network termination

M

mA	milliampere
MAT	Metropolitan Area T-carrier
Mbps	megabits per second
MBps	Megabytes per second
MBS	maximum burst size
MDF	main distributing frame
MDS2	metallic distribution shelf 2
MDSU	metallic distribution server unit
MEA	mismatch of equipment and attributes
MHz	mega hertz
MIB	management information base

MJ	major
MLTS	multiline telecommunications system
MMSU	modular metallic service unit
MN	minor
MR	modification request
ms	millisecond
MSC	metallic shelf controller
MSG	message switch
MTBF	mean time between failures
MTU	maximum transfer unit
MVEC	majority vote error correction

N

NB	narrowband
NCTE	network channel terminating equipment
NE	near end or network element
NEBS	network equipment building systems
NEC	national electric code
NI	network interface
NIC	network interface card
NMP	network management protocol
NMS	network management station
nrt-VBR	nonreal time variable bit rate
NSA	nonservice affecting
NT 1	network termination - 1
NTP	network time protocol
NTT	no test trunk
NTR	network timing reference
NVDS	nonvolatile data storage
NVPS	nonvolatile program storage

O

OAM&P	operations, administration, maintenance, and provisioning
OAP	optical application pack
OC	optical carrier
OCU	office channel unit
OE	originating equipment
OHT	on-hook transmission
OLIU	optical line interface unit
ONU	optical network unit
OOS	out of service
OPS/INE	operations system for intelligent network
OS	operations system
OSMINE	operations systems modification of intelligent network elements
OSP	outside plant
OTGR	operations technology generic requirements

P

P/AR	peak to average ratio
PAM	pulse amplitude modulation
PBX	private branch exchange
PC	personal computer
PCI	peripheral component interconnect
PCM	pulse code modulation
PCR	peak cell rate
PDF	portable document format
PFP	physical feeder port
PGTC	pair gain test controller
PIDB	processor interface data bus
PLAR	private line automatic ring
PLCP	physical layer convergence protocol
PLN	physical line number

PLR	pulse line repeater
POTS	plain old telephone service
ppm	parts per million
PPP	point to point protocol
PRC-Access	Product Realization Center-Access
PRI	primary rate interface
PRS	primary reference source
PSAP	public safety answering point
PSC	protection switching counts
PSD	power spectral density
PSDM	power spectral density mask
PSES	p-bit severely errored seconds
PSTN	public switched telecommunications network
PTU	power and test unit
PVC	permanent virtual circuit
PVP	permanent virtual path

Q

QMON	quality monitoring
QoS	quality of service

R

RACO	remote alarm cutoff
RADSL	rate adaptive digital subscriber line
RAI	remote alarm indication
RAM	random access memory
RCLK	receive clock
RC/V	recent change/verify
RD	ring down
RDI	remote defect indication
REFCLK	reference clock
REN	ringing equivalence number

RFI	remote failure indication
RIP	routing information protocol
RMU	remote measurement unit
ROC	remote operations channel
R-S	Reed-Solomon
RSF	receive signal failed
RT	remote terminal
rt-VBR	real time variable bit rate
RTAC	regional technical assistance center
RTLTP	receive transmission level point
RTU	remote test unit
Rx-UUS-IMA	receive unusable seconds-IMA

S

SA	service affecting
SARTS	Switched Access Remote Test System
SAS-P	severely errored framing/alarm indication signal seconds-path
SCEC	second channel error correction
SCR	sustained cell rate
SDSL	symmetric digital subscriber line
SEFS	severely errored framing seconds
SEFS-P	severely errored framing seconds-path
SEFS-S	severely errored framing seconds-section
SES	severely errored seconds
SES-P	severely errored second-path
SES-S	severely errored seconds-section
SES-IMA	severely errored seconds-IMA
SES-L	severely errored seconds-line
SES-LFE	severely errored seconds-line far end
SES-P	severely errored seconds-path
SES-S	severely errored seconds-seconds
SF	superframe

shelf_PCR	shelf peak cell rate
SID	source identifier
SL	selecting slope
SNMP	simple network management protocol
SNR	signal to noise ratio
SONET	synchronous optical network
SWDL	software download

T

TAP	test access path
TBCU	test bus control unit
TCA	threshold crossing alert
TCP/IP	transmission control protocol/Internet protocol
TDM	tandem
TDR	time domain reflectometry
TL1	transaction language -1
TL1SI	TL1 system interface
TLP	transmission level point or test level point
TMC	timeslot management channel
TMS	transmission (test) measuring set
TO	transmission only
TOS	test operations system
TR	technical reference
TR-08	Telcordia Technologies, Inc. Standard TR-008
TSA	timeslot assignment
TSC	test system controller
TSG	timing signal generator
TSI	time slot interchange
TTF	transmission test facility
TTLP	transmit transmission level point
Tx-UUS-IMA	transmit unusable seconds-IMA

U

UART	universal asynchronous receiver/transmitter
UAS	unavailable seconds
UAS-IMA	unavailable seconds-IMA
UAS-L	unavailable seconds-line
UAS-LFE	unavailable seconds-line far end
UAS-P	unavailable seconds-path
UBR	unspecified bit rate
UCC	universal communication channel
UDP	user datagram protocol
U-DSL	U-interface digital subscriber line
UIP	user interface panel
UNCCNT	uncorrected HEC error counter
UNI	user network interface
UPC	usage parameter control
USB	universal serial bus
UPN	urgent problem notification
UVG	universal voice grade

V

VB	virtual bank
VBR	variable bit rate
VC	virtual circuit (traditional DLC services) or virtual channel (ATM xDSL services)
VCC	virtual channel connection
VCI	virtual channel identifier
VCOT	virtual central office terminal
VDC	volts direct current
VDSL	very high speed digital subscriber line
VF	voice frequency
VFDE	voice frequency data enhancement
VGA	video graphics array

VoDSL	voice over digital subscriber line
VOM	volt ohm meter
VP	virtual path
VPC	virtual path connection
VPI	virtual path identifier
VPN	virtual private network
Vrms	volts root mean square
VRT	virtual remote terminal
VT	virtual tributary

W

WAN	wide area network
WATS	wide area telephone service
WL	working length

X

XTC	extended test controller
-----	--------------------------

Z

ZBS	zero byte substitution
ZCS	zero code suppression

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