advanced media technologies®

MODEL

ARPD

NEXT GENERATION MODULAR COMPACT DEMODULATOR

MOTOROLA

The Advanced RPD (ARPD) is a next-generation headend product that offers greater demodulator density in a more compact chassis than the currently fielded RPD-2000 product. The ARPD is a modular 1 RU product that supports the inclusion of up to six removable (hot-swappable) demodulator modules (ADM-4000 modules). The ARPD performs the same functions as the RPD-2000 product, but offers a larger number of upstream demodulators in a smaller physical package. In addition to saving rack space, the ARPD easily and efficiently allows multiple upstream demodulators to be placed in each upstream path. This increases the bandwidth capacity of each upstream return path, allowing the system to support increased VOD penetration and the introduction of new interactive features such as switched digital video.

SPECIFICATION SHEET

FEATURES

High-density compact design—1 RU chassis holds up to six ADM-4000 Advanced Demodulator Modules* and can be functionally equivalent to three RPD-2000s, saving rack space

Each ADM-4000 module includes two RF ports (input and output) and supports the ability to demodulate up to three different return channels

A fully loaded ARPD chassis containing six ADM-4000 modules supports up to six different upstream paths and the ability to demodulate up to 18 different return channels

The ADM-4000 demodulator modules are front-loading (cables connect in the back) and hot-swappable

Tuner frequency range is from 5 to 65 MHz, and the dynamic range is 20 dB (0 dBmV ±10 dB)

Receives and demodulates upstream data packets (MAC cells) transmitted by STBs and performs FEC, marking each received cell as perfect, corrected, or uncorrectable

Performs power level measurement on each demodulated MAC cell to support the STB power leveling system

Transmits the demodulated MAC cells containing interactive data and/or polling data to the NC-1500 or RADD over UDP/IP/Ethernet

Provides status and alarms using SNMP traps

*Sold separately

SPECIFICATIONS

INTERFACES

RF Interfaces (data I/O)	6 inputs, F-type connectors (75 Ω) 6 outputs (loop-thru), F-type connectors (75 Ω)
Network Interface #1	1 RJ-45 (10/100Base-T); data output (transmit data to Motorola NC-1500 or RADD; BOOTP and DHCP; diagnostics
Network Interface #2	1 RJ-45 (10/100Base-T); diagnostics
RS-232 Console Port	1 DB9 (RS-232)

RF SPECIFICATIONS

Demodulation	DQPSK
Input Frequency Range	5 to 65 MHz
Demod Center Frequencies	5.216 to 64.736 MHz in 192 kHz steps
Dynamic Range	20 dB (0 dBmV ±10 dB)
Interference and Noise	C/(N+I) < 16.5 dB
Symbol Rate	128 ksps
Channel Bit Rate	256 kbps
Information Bit Rate	223 kbps
FEC	RS (62,54) T= 4 GF(256)
Return Loss (per RF input)	>16.5 dB of return loss (5 to 65 MHz)

ELECTRICAL AC CHASSIS

Input Voltage	100 to 240 VAC
VAC Frequency	50 to 60 Hz
Current	1.2 A @ 120 VAC
Power Consumption	50 W (typical), 60 W (maximum)

ELECTRICAL DC CHASSIS

Input Voltage	–40 to –60 VDC
Current	1.75 A @ –48 VDC
Power Consumption	50 W (typical), 60 W (maximum)

ENVIRONMENT

Ambient Temperature	32 °F to 122 °F (0 °C to 50 °C)
Ambient Humidity	5% to 90%
Storage Temperature	–40 °F to 158 °F (–40 °C to 70 °C)
Cooling	Convection (2 fans)

OTHER

Limited Warranty	1 year
Dimensions	1.72 in H x 18.86 in W x 14.85 in L (4.37 cm x 47.90 cm x 37.72 cm) (1 RU)
Weight	8.25 lb (3.74 kg) (fully populated chassis)
Mounting	19 in rack mount

PRODUCT NUMBER	DESCRIPTION
535655-001	ARPD Chassis (AC Power)
535655-002	ARPD Chassis (DC Power)
535666-001	ADM-4000 DM Module (up to 6 per ARPD chassis)

Note: The ADM-4000 DM modules are sold separately from the ARPD chassis.

538555-001-c

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