



The AST-RXD is a high performance, forward path single optical receiver designed to meet the need for high-density forward path equipment in CATV systems. The RXD has a full 1 GHz bandwidth, allowing service providers to extend the forward capacity to meet future requirements.

The 4RU AST chassis accommodates up to 21 of the compact, half height receiver modules, allowing up to 210 receivers to fit in one standard 6-foot rack. This highest density on the market enables valuable space savings as more and more advanced services are offered.

The hot-swappable AST-RXD module provides operational bandwidth to 1003 MHz and accepts both 1310 nm and 1550 nm wavelengths and a wide optical input power range of -7 to +3 dBm. This allows the same receiver package to provide a variety of high density solutions in wide bandwidth Headend to Hub or Hub to Hub downstream optical transport. Moreover, a high RF output and a low noise contribution of less than 8 pA/√Hz eliminates the need for additional RF amplification.

FEATURES & BENEFITS

- Full 1 GHz technology
- Advanced design enables low noise performance and high RF output power
- Wide RF level adjustment range of 31 dB
- Remote and local management through web interface or SNMP
- Quick disconnect RF connectors for easy module replacement
- Front panel RF test point allows convenient monitoring
- High module density- up to 21 modules in 4RU chassis & 210 modules in standard rack

An onboard microcontroller provides complete monitoring and control of the unit. Software design includes both function control and unit monitoring. The controller system also provides alarm processing and status monitoring functions. These signals are routed to the AST Chassis Control and Management Unit (CMU) that provides local or remote unit management through a web browser interface. The management system also provides an SNMP compliant interface to a higher level element manager such as HP OpenView or Castle Rock SNMPc.

Front panel indicators provide immediate visual indication of Optical Input Present as well as a Summed Status LED, which indicates a fault occurrence with the module. The unit also includes a 75 ohm front panel RF test point for convenient monitoring of signal quality.

SPECIFICATIONS

Optical

Optical Input Wavelength: 1200-1600 nm
Optical Input Power: -7 dBm to +3 dBm
in 1 dB steps
Optical Connector: SC/APC, E2000/APC

RF

Bandwidth: 45 to 1003 MHz
Typical Operating Range: 45 to 870 MHz
RF Output: +40 dBmV/ch (*)
Attenuation Control Range: 0-30 dB, 1 dB steps
Response Flatness (typ./max.): $\pm 0.75 / \pm 1.0$ dB
Output Return Loss: >16dB (45-1003 MHz)
Output Impedance: 75 ohms

Performance

Equivalent Input Noise: $< 8 \text{ pA}/\sqrt{\text{Hz}}$

System Specifications

Capacity: up to 21 modules in one 4RU AST chassis

Mechanical/Electrical

RF Connector: F connector (chassis rear)
RF Test Point: -20, ± 1 dB
(relative to RF output)

Environmental

Operating temperature: 0° to 50°C
Storage temperature: -40° to +85°C, 24 hours
Relative humidity: 10 to 95%, non-condensing

Physical Dimensions

Excluding handles and connectors.

1.2" (W) x 15.4" (D) x 3.2" (H)
(2.9 cm x 39.0 cm x 8.2 cm)

Notes:

(*) At 0 dBm optical input power & 3.8% OMI/ch for NTSC or 4.2% OMI/ch for PAL

ORDERING INFORMATION

AST-RXD - xx

AST Forward Path
Optical Receiver

Optical Connector
E2 = E2000/APC
SC = SC/APC

