

Scientific Atlanta

Broadband Communications
Group

Optoelectronic Transmitter Model 6460

The Model 6460 Optoelectronic Transmitter, housed in a compact, easy-to-install System 60 module, is a reliable, high-performance transmitter with unmatched signal quality and low distortion.



20776

Features

- High-performance distributed feedback (DFB) laser with integral optical isolator for unmatched signal quality
- Low distortion integrated pre-amplifier for low input levels
- Integral power supply with dc backup for increased reliability
- All fiber and RF connections in rear for easy installation and maintenance
- Housing in compact System 60 module to conserve rack space
- Selectable Automatic Gain Control (AGC) to ensure stable RF input
- Selectable Automatic Power Control (APC) for stable optical output
- RF overdrive protection and laser slow-start circuitry for maximum reliability
- Complete status monitoring, including local or remote alarms and control functions
- Nine front panel status displays to simplify monitoring and troubleshooting

Scientific-Atlanta, Inc.

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Optoelectronic Transmitter

Model 6460

Description

The Model 6460 Optoelectronic Transmitter sets a new industry standard for optical transmitters with a complete complement of features and benefits. It contains state-of-the-art analog DFB lasers that provide exceptional performance.

The Model 6460 Optoelectronic Transmitter contains the same type of circuitry found in Scientific-Atlanta's Model 6450 Optoelectronic Transmitter, which has established a reputation as the most reliable AM transmitter on the market, with an average of more than 150,000 hours between failures. With even more features than the Model 6450 Optoelectronic Transmitter, the Model 6460 Optoelectronic Transmitter represents the top-of-the-line in AM transmitters.

The additional features of the Model 6460 Optoelectronic Transmitter include an integrated pre-amplifier to drive the laser, an integrated power supply, automatic gain control capability, automatic power control capability, and expanded status monitoring capability.

The integrated laser pre-amplifier allows the unit to be specified to accept a much lower input level without requiring an external pre-amplifier. The integrated power supply enables each module to operate independently, allowing up to four lasers per chassis, therefore saving rack space.

The unit contains a selectable AGC circuit which maintains a constant RF drive level to the laser. There is also a selectable automatic power control circuit that maintains a constant output power from the laser.

Status-monitoring circuitry monitors the status of the laser and the RF circuitry, and this information can be interfaced with local or remote status monitoring hardware. Front panel digital displays and LEDs provide information about nine important parameters, simplifying the unit's setup, operation and maintenance.

Specifications

Input signal level (80 channels)

27 dBmV/channel

AGC range

±5 dB

Input impedance

75 Ω

Return loss

15 dB

Modulation bandwidth (forward)

46 MHz to 550 MHz

Wavelength (nominal)

1310 nm

Power

115 V ac, 50 Hz to 60 Hz, or 24 V dc (backup)

240 V ac ± 10%, 50 Hz

Power consumption

25 W

Dimensions

5 in. H x 4 in. W x 15 in. D

Operating temperature

0°C to 50°C

RF test points

20 dB ± 1.0 dB