



# OMNISTAR<sup>®</sup> GX2

## GX2-DM1000B10/CH\*\*

### 1 GHz DWDM Narrowcast Transmitter

With 40 ITU wavelengths available, the GX2-DM1000B10/CH\*\* transmitter provides the optimal solution for targeted services delivery for links with limited fiber count.

The OmniStar GX2-DM1000B10/CH\*\* Dense Wavelength Division Multiplexing (DWDM) narrowcast transmitter is specially designed for targeted services delivery loaded between 47 MHz to 1 GHz. It uses a high-performance, directly modulated, DFB laser that enables the transmitter to be used for links up to 100 km. An integrated PIN attenuator enables operators to adjust the RF for optimal performance. By combining these DWDM transmitters with Motorola's optical amplifiers (EDFAs), multiplexers, and demultiplexers, broadband operators can deploy a scalable, future-proof DWDM targeted services network. With 40 ITU wavelengths available, many independent signals can be combined and transported through a single fiber. With the proper system design, hubs can be made totally passive, minimizing facilities and maintenance requirements. Routing and provisioning can be enabled to occur at the headend.

To minimize valuable headend space, the compact, energy-efficient design enables the 4 RU OmniStar GX2 housing to hold 16 plug-and-play transmitter modules. Enhanced with PowerPC<sup>®</sup> technology by Motorola, the GX2-DM1000B series of transmitters introduces a new-found intelligence to traditional headend equipment. Unique embedded features, such as hot-swappable modules with Quick-Swap Module Configuration, maximize in-service time by eliminating the need for manual configuration.

## DATA SHEET

OMNISTAR® GX2  
GX2-DM1000B10/CH\*\*, DWDM Narrowcast Transmitter

### BENEFITS INCLUDE:

- Up to 300 MHz of targeted services can be loaded between 47 MHz to 1 GHz
- Performance optimized for QAM signals
- Automatic gain control to optimize RF input level
- High density—up to 16 modules in a 4 RU chassis
- 40 ITU wavelengths available
- Excellent noise-to-power ratio (NPR)
- Integrated PIN attenuator adjusts RF for optimal link performance
- Plug-and-play application modules with rear-mounted, blind-mate RF connectors

### OPTICAL

Optical Wavelength	ITU Channels 20 to 59; 100 GHz spacing
Wavelength Accuracy	± 0.1 nm
Optical Output Power	10 dBm min.
Optical Output Ports	One
Optical Connector Type	SC/APC or E2000 with optical safety shutter

### RF

RF Bandwidth	47 MHz to 1003 MHz
Operational Bandwidth	100 MHz to 300 MHz <sup>1</sup> , contiguous
RF Input Level, Nominal	37 dBmV total power
Noise Power Ratio (NPR)	100 MHz of QAM, 60km of fiber
Peak	>47 dB
10 dB Dynamic Range	>40 dB
RF Input Test Point	-20 ± 0.5 dB relative to broadcast RF input port
Laser Input Test Point	-20 ± 0.5 dB relative to laser RF Input
RF Input Impedance	75
RF Input Return Loss	18 dB min.
PIN attenuator range	10 dB

<sup>1</sup>The amount of bandwidth loading is dependent on the system architecture.

### GENERAL

Dimensions	1.0 in W x 5.9 in H x 15.0 in D (2.5 cm x 15.0 cm x 38.0 cm)
Weight	2 lb (1 kg)
Mounting	GX2-HSG* equipment shelf
RF Connector Types	
Input	F-type (using G-to-F on chassis)
Test points	F-type
Operating Temperature Range	-20 °C to 60 °C (-4 °F to 140 °F)
Storage Temperature Range	-40 °C to 80 °C (-40 °F to 176 °F)
Power Consumption	17 W max., 12 W typ.
Eye Protection	Optical safety shutter
Visual Interface	Tri-colored module status LED
Data/Control Interface	Serial Peripheral Interface (SPI) to control module

Model Number	Description
GX2-DM1000B10/CH**	DWDM Narrowcast Transmitter

\*\* Designates ITU channel number. Available at channel 20 to 59 at 100 GHz spacing

Specifications are subject to change without notice.



**MOTOROLA**

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