

Features

- Digitizes 5–65 MHz analog RF return
- Optical port accepts SFP transceiver for highly flexible, easily configurable support with backhaul transmission at 1310 nm, 1550 nm, or CWDM wavelengths
- Multiple digital transceivers can be concatenated or "daisy-chained" to minimize transport fiber requirements
- Multiple optical outputs can be multiplexed onto a common fiber with DX3515 series digital DWDM transponders and multiplexers
- Hot plug-in/out
- Occupies one half-depth slot
- Compliant with IEEE 802.1P, 802.1Q, 802.3u, VLAN, ToS

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Digital Transceiver (5-65 MHz RF Input)



Model DT3032 series Digital Transceivers, components of Aurora's Integrated Digital Transport System, digitize the analog RF return path (5–65 MHz) and provide a flexible platform that supports different network configurations with both point-to-point and concatenated applications. For concatenated applications, multiple transceivers can be designed into a daisy-chained configuration. The various configurations are supported for distances up to 40 kilometers using any of a variety of available plug-in (SFP) modules with 1310 nm, 1550 nm, and CWDM transmission wavelengths, while even longer spans are supported with Aurora's DX3515 series Digital Transponders.

DT3032

Product Specifications

Physical:

- Dimensions (without connectors): 6.5" L x 4.3" W x 1.0" H (17 cm x 11 cm x 2.5 cm)
- Weight: 1.0 lbs (0.5 kg)

Environmental:

- Operating temperature range: -20° to +65°C (-4° to 149°F)
- Storage temperature range: -40° to +85°C (-40° to 185°F)
- Humidity: 5% to 95% non-condensing

General:

- Optical transmission bit rate: 2.125 Gbps
- Optical interface: LC duplex (on plug-in Aurora SFP transceiver, available by separate order)
- Number of RF channels: 1
- RF connectors, front panel:
 - RF input, F-type
 - RF input test point, G-type
- Hot plug in/out

Power Requirements:

- Input voltage: 12 V_{DC}
- Power consumption: 7.7 W

RF Path:

- Pass band: 5–65 MHz
- Frequency response: ±0.5 dB
- Input return loss, minimum: 18 dB
- Level stability: ±0.5 dB
- Gain control range: 16 dB (in 2 dB steps)
- System nominal gain: 28 dB (with DR3402 Digital Receiver at full gain)
- Input level RF test point: -20 ±0.5 dB
- Test point return loss, minimum: 18 dB

Distortions:

- Nominal loading: 5–65 MHz (QPSK carriers or equivalent Gaussian noise)
- Nominal input: -60 dBmV/Hz
- Dynamic range at 41 dB CNR, minimum: 11 dB
- Peak NPR: 49 dB

Network Optical Port:

The optical port can be populated with a variety of SFP (plug-in) transceivers depending on the network application. Please refer to the appropriate data sheets for the selected transceivers for detailed specifications. Following is a summary of available transceiver options (model numbers and brief descriptions) for these ports.

2.125 Gbps SFP Transceiver Options

- TR4000-PI (transmit at 1310nm for links up to 10 km)
- TR4040-PI (transmit at 1310nm for links up to 40 km)
- TR4540-0000-PI (transmit at 1550nm for links up to 40 km)
- TR4440B-xxxx-PI (transmit at CWDM wavelength of xxxx = 1430, 1450, 1470, . . . , 1610 nm for links up to 40 km)
- Network optical interface connectors: LC Duplex on SFP

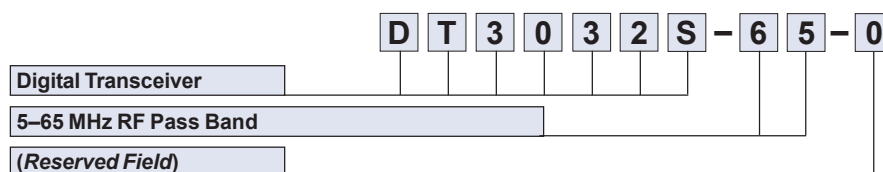
Front Panel LED Indicators:

- Module status indicators:
 - Alarms: 3 separate LEDs (green, yellow and red) of which one is illuminated to indicate status (OK, non-service-affecting alarm and service-affecting alarm, respectively)
 - Access: Illuminated blue during SM communication with module
- Plug-in SFP transceiver status indicators:
 - Transmission OK: green
 - Receiving signal OK: green

Alarms and Locally Monitored Parameters:

Service-affecting and non-service-affecting alarms; monitoring of chassis slot number, internal temperature, fan status and self-monitored parameters (reported via optical fiber to the associated digital receiver)

Ordering Information



Transceiver Plug-in Module

The SFP module must be ordered separately. Please refer to the above list of available transceivers and appropriate data sheets for specific complete model numbers and ordering information.



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