QDAX-500

InGaAs APDFET Receiver

- *Long-haul STM4/OC12 applications*
- *High sensitivity, -40 dBm at 622 Mb/s*
- *Low optical reflection*
- *1300 and 1550 nm operation*
- *Transimpedance amplifier*

Description

The Corning Lasertron QDAX is a fiber-optic receiver utilizing an InGaAs APD followed up with a fixed 4K Ohm transimpedance amplifier which offers superior sensitivity required in long-haul applications. Packaged in a 14-pin DIL, the QDAX is pigtailed with single-mode fiber and the amplifier has 50 Ohm output impedance.

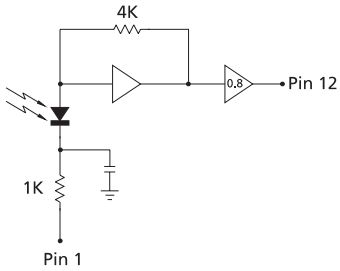
Specifications *Contact Corning Lasertron regarding special requirements.*

(Characteristics at 25°C, except as noted)

	Min	Typ	Max
Optical Characteristics			
Operating wavelength (nm)	1250		1560
Responsivity, APD gain = 1, 1550 nm (A/W)		0.9	
Return loss (dB)	27		
Electrical Characteristics			
Sensitivity, 1 • 10^{-10}, 1550 nm, 622 Mb/s (dBm)[1]		-40.5	-40
Maximum overload (dBm)[2]	-15	-11	
Transimpedance (K Ohms)		3.2	
Bandwidth 3 < M < 20 (MHz)	500		
+5 V supply current (mA)		54	65
-5 V supply current (mA)		25	35
Output impedance (Ohm)	45	55	65
Operating Conditions and Requirements			
Storage temperature range (°C)	-40		85
Operating temperature range (°C)	-20		70
Positive supply voltage (V)	4.75	5	5.25
Negative supply voltage (V)	-5.25	-5	-4.75
Power consumption (mW)		400	500

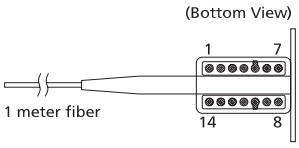
1 Sensitivity is tested at an optimum APD voltage, typically M=12.
2 Maximum overload is tested at the minimum APD voltage to achieve 500 MHz bandwidth, typically M<3.

QDAX APDFET RECEIVER



Pin Connections

1	APD Bias Voltage (+)	8	Ground
2	Ground	9	+5 V
3	Ground	10	Ground
4	-5V	11	Ground
5	Case Ground	12	Output
6	Ground	13	Ground
7	Ground	14	NC



Ordering Information

	Suffix			
Base Model	**No Connector**	**FC/PC**	**ST**	**SC**
QDAX-500	-002	-050	-052	-053