



The FDN (fiber deep node) is designed to provide an economic solution to the fast growing fiber deep network. Careful attention to design and implementation of the RF circuitry provides high output levels with excellent specifications. It utilizes a receiving module to assure optimum carrier-to-noise performance and with GaAs hybrids, the output level can reach up to 52dBmV. It is also able to work at very low optical input power. FDN offers a wide variety of pass band options. Diplex filters are available at 35/47, 42/54, and 65/87 MHz, allowing operation in virtually any cable system worldwide. All of the bi-directional ports are capable of passing power into or out of the unit. Configured in a sturdy, weatherproof die casting aluminum alloy housing, FDN operates over a wide temperature range and accepts cable powering from 40 – 90Vac. The unit is optional provisioned also for power supplies of 220/110Vac.

Forward Path, Optical

Optical Input Range	-6dBm to +2dBm, 0dBm nominal
Optical Wavelength	1290nm to 1600nm
Fiber Connector	SC/APC, FC/APC

Return Path, Optical

Optical Output Power	1mW or 2mW (FP or DFB)
Optical Wavelength	1310nm ±10nm
Fiber Connector	SC/APC, FC/APC

Return Path, RF

Pass Band	5~42MHz
RF input power	20dBmV
Test Points	-20dB
Flatness	±0.75dB
Return loss	≥16dB
Gain Adjustment	Plug in attenuator 0-10dB 2dB per step

Forward Path, RF

Pass Band	54MHz to 862MHz
Output Level (@ -1dBm)	52±1dBmV (at 8dB slope, 2 equal outputs)
RF impedance	75Ω
Flatness	≤ + 0.75dB
Distortions	CTB ≤ -65dBc CSO ≤ -60dBc
	(Carrier loading 59 PAL-D Channels, Rayvert Transmitter, modulation 3.6% per channel, 10KM fiber, -1dB optical input, 8dB Slope, RF output 52dBmV)
Gain Adjustment	Plug in attenuator 0-10dB 2dB per step and 0-20dB continuously adjustable attenuator
Slope Adjustment	0-20dB continuously adjustable slope
Output Return Loss	≥16dB
Test Points	-20dB

General

Power	60VAC or 110/220VAC (50/60Hz)
Power consumption	<45W
RF Connector	F
Dimensions (W x D x H)	290mm x 210mm x 150mm
Weight	≤4 Kg
Operating Temperature	-20°C to +50°C

Order Information

Model Number: FDN-860-2-[A]-[B]-[C]-[D]-[E]-[F]

- A** RPT1: Return Path FP/1mW 1310nm Tx, RPT2: Return Path FP/2mW 1310nm Tx,
 DFB: Return Path DFB/ 2mW 1310nm Tx , RPR: Return Path Reserved
- B** Return Path Laser with Isolator: ISO, Without Isolator: X
- C** Diplex Filter (MHz): 35/47, 42/54, 65/87
- D** SC (SC/APC), FC (FC/APC)
- E** Power: 220Vac / 60Vac
- F** SP Splitter (2 equal outputs)
 DC1 Coupler (1single output)
 DC-10 Coupler (-10dB for second output)

Example: FDN-860-2-DFB-ISO-4254-SC-60-SP100

Fiber Deep Node 860MHz, 2 RF Outputs, incorporating receiving module, GaAs hybrids, and 1310nm return transmitter 2mW DFB with isolator, with SC/APC connector and powered by 60Vac

Note: Specific customer options are available upon request.

In the interest of continued product improvement, photographic representations, written descriptions and specifications are subject to change without notice.