

FN900 FIBER NODE

PRODUCT DESCRIPTION

FN900, the operating bandwidth of 47-862MHz, is a low power, high performance, cost-effective triple play, FTTH CATV optical receiver.

Products with high sensitivity optical receiver tube and special low noise matching circuit.

FN900 for Analog TV, in Pin = -10dBm when, $V_o \geq 69dB\mu V$, $CNR \geq 45dB$.

FN900 for Digital TV, in Pin = -15dBm when, $V_o \geq 62.7dB\mu V$, $MER \geq 36.8dB$.

FN900 for Digital TV, in Pin = -20dBm when, $V_o \geq 53.1dB\mu V$, $MER \geq 29.4dB$.

Triple play, fiber to the home, using the FN900 can save a lot of optical fiber amplifier power resources. For operators, can greatly reduce the cost of building the network.



FN900 : optical port mode of the following three selection:

FN900 : operating wavelength 1260-1620nm. A- Type

FN900/WD : Built-in CWDM, suitable for single-fiber triple wavelength system, CATV operating Wavelength 1550nm, pass wavelength 1310/1490nm, can conveniently connect the ONU of EPON, GPON. B - Type & C - Type

FN900W/F : built-in 1310/1490nm filter, suitable for single-fiber triple wavelength system, CATV operating wavelength 1550nm. A - Type

PRODUCT FEATURE

- Extra-low noise (3.8% modulate, -10dBm receive, $CNR \geq 45dB$)
- Wide dynamic receiving optical power range: within Pin=-15, $MER \geq 36.8dB$
- Applicable GPON, EPON, compatible with any FTTH PON technology
- Can save a large number of optical power resource.
- Reduce the Network configuration cost
- In the range of 47-862MHz, all have good flatness ($FL \leq \pm 0.75dB$)
- Metal shell, supply safeguards to opto-electrical sensing device
- High output level can supply for many users
- Low power consumption, high-cost performance

MAIN APPLICATION

1. CATV FTTH
2. Integration of three network
3. FTTH PON

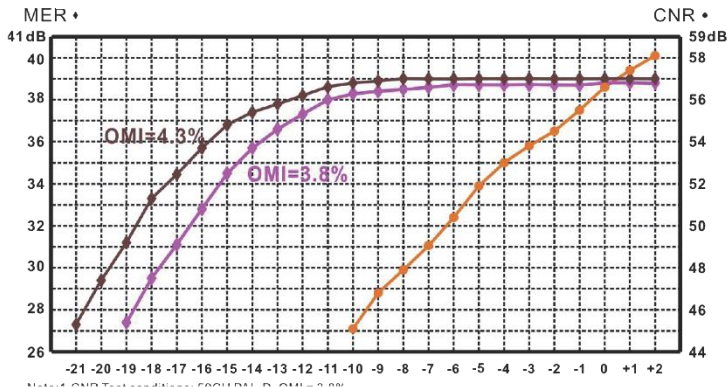
STATUS INDICATION

1. RED: $>+2 dBm$
2. GREEN: $+2 \sim -16 dBm$
3. ORANGE: $-16 \sim 20 dBm$
4. RED: $< 20 dBm$

TEST DATA (Pin=+2.0dBm ~ -20dBm)

Pin (dBm)	V0 (dBpV)	MER	BER		Pin (dBm)	(dBpV)	MER	BER	
			POST	PER				POST	PER
+2.0	97	39.0	<1.0E-9	<1.0E-9	-10.0	72.9	38.8	<1.0E-9	<1.0E-9
+1.0	94.9	39.0	<1.0E-9	<1.0E-9	-11.0	70.5	38.7	<1.0E-9	<1.0E-9
+0.0	92.7	39.0	<1.0E-9	<1.0E-9	-12.0	68.4	38.2	<1.0E-9	<1.0E-9
-1.0	90.1	39.0	<1.0E-9	<1.0E-9	-13.0	67.2	37.6	<1.0E-9	<1.0E-9
-2.0	88.8	39.0	<1.0E-9	<1.0E-9	-14.0	64.9	37.4	<1.0E-9	<1.0E-9
-3.0	86.8	39.0	<1.0E-9	<1.0E-9	-15.0	62.7	36.8	<1.0E-9	<1.0E-9
-4.0	84.6	39.0	<1.0E-9	<1.0E-9	-16.0	60.7	35.7	<1.0E-9	<1.0E-9
-5.0	82.2	39.0	<1.0E-9	<1.0E-9	-17.0	59.1	34.5	<1.0E-9	<1.0E-9
-6.0	80.2	39.0	<1.0E-9	<1.0E-9	-18.0	57.1	33.3	<1.0E-9	<1.0E-9
-7.0	78.9	39.0	<1.0E-9	<1.0E-9	-19.0	55.1	31.2	<1.0E-9	<1.0E-9
-8.0	76.0	39.0	<1.0E-9	<1.0E-9	-20.0	53.1	29.4	<1.0E-9	<1.0E-9
-9.0	75.1	38.9	<1.0E-9	<1.0E-9					

CNR, MER DEGRADATION TABLE



TEST DATA (Pin=+2.0dBm ~ -20dBm)

Performance		Index	Supplement
Optic	CATV Work wavelength	(nm)	1260-1620
			1540-1563
	Pass wavelength	(nm)	1310, 1490
	Channel Isolation		1550nm & 1490nm
	Responsivity	(A/W)	≥0.85
			≥0.9
	Receiving power	(dBm)	+2 ~ -10
			+2 ~ -20
Optical return loss	(dB)	≥55	
Optical fiber connector		SC/APC	FN900, FN900/WF
		LC/APC	FN900/WD
Feature	Work bandwidth	(MHz)	47 -862
	Flatness	(dB)	≤±0.75
	Output level	(dBμV)	>82
			>82
	Output level adjust	(dB)	0-18
	Return loss	(dB)	≥14
	Output impedance	(Ω)	75
	Output port number		1
RF tie-in		F-Female	
Analog Link	Test channel	(CH)	59CH(PAL-D)
Feature	OMI	(%)	3.8
	CNRI	(dB)	54.6
			Pin=-2dBm
	CNR2	(dB)	45.1
			Pin=-10dBm
	CTB	(dB)	≤-65
			Pin: 0 ~ -10dBm
	CFO	(dB)	≤-65
			Pin: 0 ~ -10dBm
DigitalTV Link	OMI	(%)	4.3
Feature	MER	(dB)	≥36
			Pin=-15dBm
			Pin=-19dBm
	BER	(dB)	<1.0E-9
			Pin:+2~-20dBm
General feature	Power supply	(V)	DC+12V
	Power Consume	(W)	≤3
			+12VDC,210mA
	Work temp	(C)	-20 ~ 55
	Storage temp	(C)	-40 ~ 85
	Work relative humidity	(%)	5 ~ 95
Size		(mm)	38x80x20
			50x88x22
			59.5x98x24
			A -Type
			B -Type
			C -Type