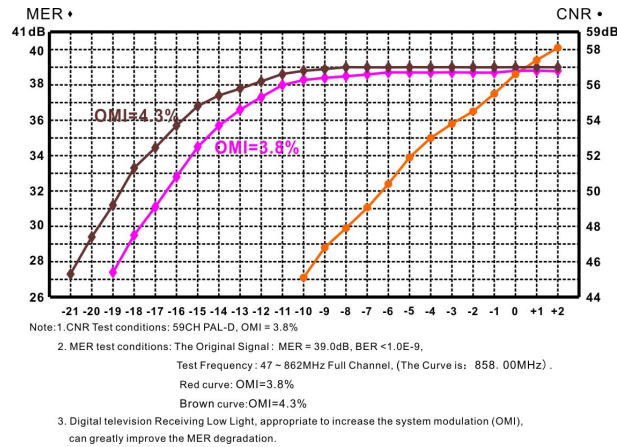


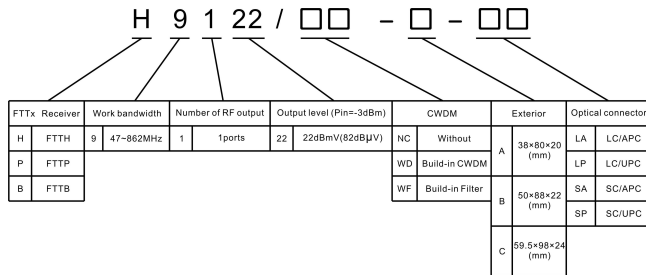
7.0 PRODUCT SERIES

Model	Input wavelength	CATV Operating wavelength	Data pass wavelength	Fiber connector	Form
H9122	1310 or 1550nm	1260~1620nm	-	SC/APC	A-Type
H9122/WF	1310, 1490/1550nm	1540~1563nm	-	SC/APC	
H9122/WD	1310, 1490/1550nm	1540~1563nm	1310/1490nm	LC/APC	B & C-Type

8.0 CNR, MER DEGRADATION TABLE



9.0 MODEL EXPLANATION



10.0.NOTE

- The power adapter for this equipment: Input 220V, output DC 12V(0.6A)
- Keep the optical connector clean, the bad link will cause too low RF output level
- The built-in RF adjustable attenuator(PAD) of equipment can debug suitable level for system users .User

Should not adjust by themselves, to avoid the device damage.

H9122、H9122/WD、H9122/WF

FTTH CATV Optical Receiver

(Pin=-15dBm、Vo≥62dBμV、MER≥36dB)

47~862MHz



H9122-A

User Manual

Ver. 2.6 en

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1.0 PRODUCT DESCRIPTION

H9122, 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.

H9122 for Analog TV, in Pin =-10dBm when,Vo ≥ 69dBμV, CNR ≥ 45dB.

H9122 for Digital TV, in Pin =-15dBm when, Vo ≥ 62.7dBμV, MER ≥ 36.8dB.

H9122 for Digital TV, in Pin =-20dBm when, Vo ≥ 53.1dBμV, MER ≥ 29.4dB.

Triple play, fiber to the home, using the H9122 can save a lot of optical fiber amplifier power resources. For operators, can greatly reduce the cost of building the network.

H9122 optical port mode of the following three selection:

H9122 :operating wavelength 1260~1620nm. A - Type

H9122/WD: Built-in CWDM, suitable for single-fiber triple wavelength system, CATV operating Wavelength 1550nm, passwavelength 1310/1490nm, can conveniently connect the ONU of EPON, GPON. B - Type & C - Type

H9122/WF: built-in 1310/1490nm filter,suitable for single-fiber triple wavelength system,CATV operating wavelength 1550nm.

A - Type

2.0 PRODUCT FEATURE

1. Extra-low noise(3.8% modulate, -10dBm receive, CNR ≥ 45dB)
2. Wide dynamic receiving optical power range: within Pin=-15, MER≥36.8dB
3. Applicable GPON, EPON, compatible with any FTTx PON technology
4. Can save a large number of optical power resource, greatly reduce the Network configuration cost
5. In the range of 47~862MHz, all have good flatness (FL ≤± 0.75dB)
6. Metal shell, supply safeguards to opto-electrical sensing device
7. High output level can supply for many users
8. Low power consumption, high cost performance

3.0 MAIN APPLICATION

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

4.0 STATUS INDICATION

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

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

Pin (dBm)	Vo (dBμV)	MER	BER		Pin (dBm)	Vo (dBμV)	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					

Remark: 1. Test Signal: MER: 39.0 (dB), BER : <1.0E-9,QAM64 4CH;
2. Tx input level: 87dBμV;3. The Test Frequency: 47 ~ 862MHz

6.0 TECHNICAL INDEX

Performance		Index	Supplement
Optic feature	CATV Work wavelength	(nm)	1260~1620 H9122 (A-Type)
			1540~1563 H9122/WF,H9122/WD (A & B & C-Type)
	Pass wavelength	(nm)	1310, 1490 H9122/WD (B & C-Type)
	Channel Isolation	(dB)	≥40 1550nm & 1490nm
	Responsivity	(A/W)	≥0.85 1310nm
			≥0.9 1550nm
	Receiving power	(dBm)	+2~-10 Analog TV(CNR>45dB)
			+2~-20 Digital TV(MER>29dB)
Optical return loss	(dB)	≥55	
Optical fiber connector		SC/APC H9122, H9122/WF	
		LC/APC H9122/WD	
RF Feature	Work bandwidth	(MHz)	47 ~862
	Flatness	(dB)	≤±0.75 47~862MHz
	Output level	(dBμV)	>82 AnalogTV (Pin=-3dBm)
			>82 Digital TV (Pin=-5dBm)
	Output level adjust	(dB)	0~18 MGC
	Return loss	(dB)	≥14 47 ~ 862MHz
	Output impedance	(Ω)	75
	Output port number		1
RF tie-in		F-Female	
Analog TV Link Feature	Test channel	(CH)	59CH(PAL-D)
	OMI	(%)	3.8
	CNR1	(dB)	54.6 Pin=-2dBm
	CNR2	(dB)	45.1 Pin=-10dBm
	CTB	(dB)	≤-65 Pin: 0~-10dBm
	CSO	(dB)	≤-65 Pin: 0~-10dBm
DigitalTV Link Feature	OMI	(%)	4.3
	MER	(dB)	≥36 Pin=-15dBm
			≥30 Pi=-19dBm
BER	(dB)	<1.0E-9 Pin:+2~-20dBm	
General feature	Power supply	(V)	DC+12V ±1.0V
	Power Consume	(W)	≤3 +12VDC,210mA
	Work temp	(°C)	-20 ~ 55
	Storage temp	(°C)	-40 ~ 85
	Work relative temp	(%)	5 ~ 95
	Size	(mm)	38×80×20 A-Type
50×88×22 B-Type			
59.5×98×24 C-Type			