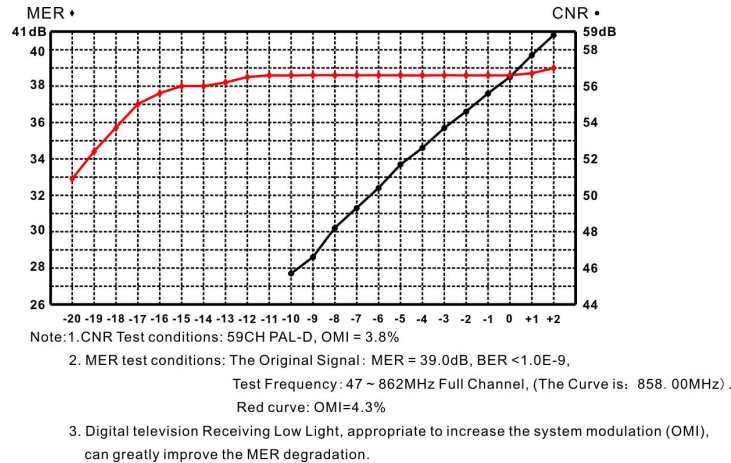


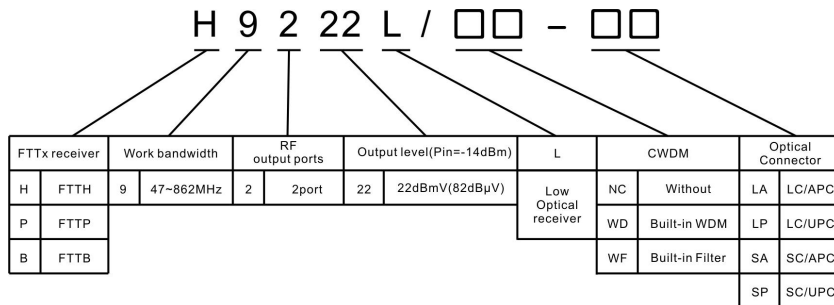
7.0 PRODUCT SERIES

Model	Input wavelength	CATV Operating wavelenght	Data pass wavelength	Fiber connector
H9222L	1310 或 1550nm	1260~1620nm	-	SC/APC
H9222L/WF	1310, 1490/1550nm	1540~1563nm	-	SC/APC
H9222L/WD	1310, 1490/1550nm	1540~1563nm	1310/1490nm	LC/APC

8.0 CNR, MER DEGRADATION TABLE



9.0 MODEL EXPLANATION



10. 0. NOTE

1. The power adapter for this equipment: Input 220V, output DC 12V(0.6A)
2. Keep the optical connector clean, the bad link will cause too low RF output level
3. 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.

H9222L、H9222L/WD、H9222L/WF

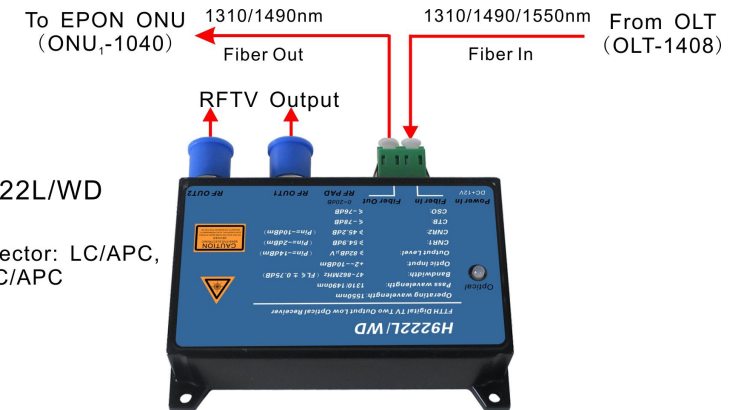
FTTH Digital TV Low Optical Receiver

(Pin=-15dBm、Vo≥66dBμV、MER≥36dB)

47~862MHz

H9222L/WD

Fiber connector: LC/APC, optional SC/APC



H9222L-B

User Manual

Ver. 2.3. en

© Copyright 2015

1.0 PRODUCT DESCRIPTION

H9222L, 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.

H9222L for Analog TV, in Pin =-10dBm when,Vo ≥ 69dBμV, CNR ≥ 45dB.

H9222L for Digital TV, in Pin =-15dBm when, Vo ≥ 62.7dBμV, MER ≥ 36.8dB.

H9222L for Digital TV, in Pin =-20dBm when, Vo ≥ 54.1dBμV, MER ≥ 29.4dB.

Triple play, fiber to the home, using the H9222L can save a lot of optical fiber amplifier power resources. For operators, can greatly reduce the cost of building the network.

H9222L optical port mode of the following three selection:

H9222L :operating wavelength 1260~1620nm

H9222L/WD: Built-in CWDM, suitable for single-fiber triple wavelength system, RFTV operating Wavelength 1550nm, passwavelength 1310/1490nm, can conveniently connect the ONU of EPON, GPON.

H9222L/WF: built-in 1310/1490nm filter,suitable for single-fiber triple wavelength system,RFTV operating wavelength 1550nm.

2.0 PRODUCT FEATURE

- Extra-low noise(3.8% modulate, -10dBm receive, CNR ≥ 45dB)
- Wide dynamic receiving optical power range: within Pin=-16, MER≥36.7dB
- Applicable GPON, EPON, compatible with any FTTx PON technology
- Can save a large number of optical power resource, greatly reduce the network configuration cost
- Within 47~862MHz bandwidth, all with excellent flatness feature (FL±0.75dB)
- Metal case, offer safeguard for optoelectronic sensitive devices
- Interface on the same side, easy to install
- Low consumption, high performance, high reliability
- Excellent cost performance in area

3.0 MAIN APPLICATION

- CATV FTTH
- Integration of three network
- FTTH PON

4.0 STATUS INDICATION

- Red: >+2dBm
- Green: +2~-16dBm
- Orange: -16~-20dBm
- 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	100.0	38.8	<1.0E-9	<1.0E-9	-10.0	76.0	38.6	<1.0E-9	<1.0E-9
+1.0	98.4	38.8	<1.0E-9	<1.0E-9	-11.0	73.9	38.4	<1.0E-9	<1.0E-9
+0.0	96.3	38.8	<1.0E-9	<1.0E-9	-12.0	71.8	38.2	<1.0E-9	<1.0E-9
-1.0	94.0	38.8	<1.0E-9	<1.0E-9	-13.0	69.5	37.9	<1.0E-9	<1.0E-9
-2.0	91.8	38.8	<1.0E-9	<1.0E-9	-14.0	68.2	37.2	<1.0E-9	<1.0E-9
-3.0	89.6	38.8	<1.0E-9	<1.0E-9	-15.0	66.0	36.2	<1.0E-9	<1.0E-9
-4.0	88.2	38.8	<1.0E-9	<1.0E-9	-16.0	64.2	35.5	<1.0E-9	<1.0E-9
-5.0	86.2	38.8	<1.0E-9	<1.0E-9	-17.0	61.5	33.6	<1.0E-9	<1.0E-9
-6.0	83.7	38.8	<1.0E-9	<1.0E-9	-18.0	59.5	31.9	<1.0E-9	<1.0E-9
-7.0	81.9	38.8	<1.0E-9	<1.0E-9	-19.0	57.9	30.1	<1.0E-9	<1.0E-9
-8.0	79.8	38.8	<1.0E-9	<1.0E-9	-20.0	55.7	28.1	<1.0E-9	<1.0E-9
-9.0	78.3	38.7	<1.0E-9	<1.0E-9					

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

6.0 TECHNICAL INDEX

Performance		Index	Supplement	
Optic feature	CATV Work wavelength	(nm)	1260~1620	
			1540~1563	
	Pass wavelength	(nm)	1310, 1490	
	Channel Isolation	(dB)	≥40	
	Responsivity	(A/W)	≥0.85	1310nm
			≥0.9	1550nm
	Receiving power	(dBm)	+2~-10	Analog TV (CNR>45dB)
			+2~-20	Digital TV (MER>28dB)
Optical return loss	(dB)	≥55		
Optical fiber connector		SC/APC	H9222L, H9222L/WF	
		LC/APC	H9222L/WD	
RF Feature	Work bandwidth	(MHz)	47 ~ 862	
	Flatness	(dB)	±0.75	
	Output level	(dBμV)	>86	AnalogTV (Pin=-8dBm)
			>82	Digital TV (Pin=-14dBm)
	Output level adjust	(dB)	0~18	MGC
	Return loss	(dB)	≥14	47 ~ 862MHz
	Output impedance	(Ω)	75	
	Output port number		2	
RF tie-in		F-Female		
Analog TV Link Feature	Test channel	(CH)	59CH(PAL-D)	
	OMI	(%)	3.8	
	CNR1	(dB)	54.9	
	CNR2	(dB)	45.2	
	CTB	(dB)	≤-78	
DigitalTV Link Feature	CSO	(dB)	≤-76	
	OMI	(%)	4.3	
	MER	(dB)	≥36	
General feature	Power supply	(V)	DC+12V	
			±1.0V	
	Power Consume	(W)	≤5.5	
	Work temp	(°C)	-20 ~ +55	
	Storage temp	(°C)	-40 ~ 85	
	Work relative temp	(%)	5 ~ 95	
Size	(mm)	86×50×22		