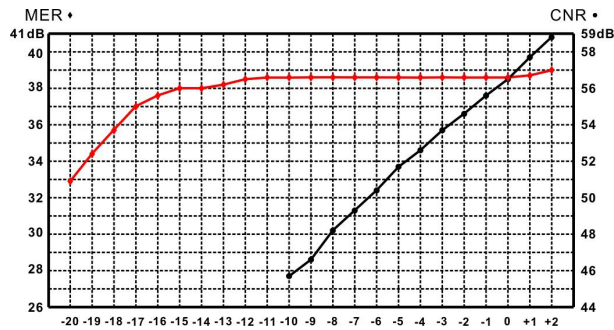


7.0 PRODUCT SERIES

Model	Input wavelength	CATV Operating wawvvelength	Data pass wavelength	Fiber connector
H9222LG	1310 或 1550nm	1260~1620nm	-	SC/APC
H9222LG/WD	1310, 1490/1550nm	1540~1563nm	1310/1490nm	LC/APC
H9222LG/WF	1310, 1490/1550nm	1540~1563nm	-	SC/APC

8.0 CNR, MER DEGRADATION TABLE



Note: 1. CNR Test conditions: 59CH PAL-D, OMI = 3.8%

2. MER test conditions: The Original Signal : MER = 39.0dB, BER < 1.0E-9, Test Frequency : 47 ~ 862MHz Full Channel, (The Curve is: 858. 00MHz). Red curve: OMI=4.3%

3. Digital television Receiving Low Light, appropriate to increase the system modulation (OMI), can greatly improve the MER degradation.

9.0 MODEL EXPLANATION

H 9 2 22 LG / □ □ - □ □

FTTx receiver		Work bandwidth		RF output ports		Output level(Pin=-13dBm)		LG	CWDM		Optical Connector	
H	FTTH	9	47~862MHz	2	2port	22	22dBmV(82dBμV)	Low Optical receiver AGC	NC	Without	LA	LC/APC
P	FTTP								WD	Built-in WDM	LP	LC/UPC
B	FTTB								WF	Built-in Filter	SA	SC/APC
											SP	SC/UPC

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.

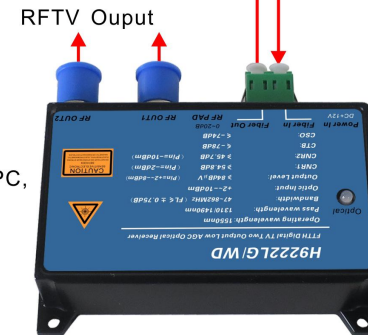
H9222LG、H9222LG/WD、 H9222LG/WF FTTH Digital TV Ultra-low Optical AGC Two Output Optical Receiver (Pin=-17dBm、Vo≥78dBμV、MER≥36dB)

47~862MHz



H9222LG/WD

Fiber connector: LC/APC, optional SC/APC



H9222LG

User Manual

Ver. 2.3 EN

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1.0 PRODUCT DESCRIPTION

Huatai H9222LG, operating bandwidth of 45~ 1000MHz, is a suitable digital television FTTH applications, Two port output ultra-low optical receiver, Whether used in analog television or digital television. Due to the built-in optical AGC, at high optical power receiver, played limiting output, so H9222LG in the received optical power over a large dynamic range of +2 dBm ~-21dBm, and have excellent properties.

H9222LG for Analog TV, in Pin =-10dBm when, Vo ≥ 83.3dB μV, CNR ≥ 45.7dB.

H9222LG for Digital TV, in Pin =-17dBm when, Vo ≥ 78.7dB μV, MER ≥ .371dB.

H9222LG for Digital TV, in Pin =-21dBm when, Vo ≥ 70.5dB μV, MER ≥ 31.1dB.

Digital TV FTTH applications, the H9222LG can save a lot of optical fiber amplifier power resources. For operators, can greatly reduce the cost of building the network. Suitable for rural power digital TV, FTTH, triple play of wide application.

H9222LG optical port mode of the following three selection:

H9222LG : operating wavelength 1260~1620nm.

H9222LG/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.

H9222LG/WF: built-in 1310/1490nm filter,suitable for single-fiber triple wavelength system,CATV operating wavelength 1550nm.

2.0 PRODUCT FEATURE

- Extra-low noise(3.8% modulate, -10dBm receive, CNR ≥ 45.7dB)
- Wide dynamic receiving optical power range: within Pin=-17, MER≥37.1dB
- 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

5.0 TEST DATA(Pin=+2.0dBm~-21dBm)

Pin (dBm)	Vo (dBμV)	MER	BER		Pin (dBm)	Vo (dBμV)	MER	BER	
			POST	PER				POST	PER
+2.0	99.6	39.0	<1.0E-9	<1.0E-9	-10.0	92.8	38.6	<1.0E-9	<1.0E-9
+1.0	98.5	38.7	<1.0E-9	<1.0E-9	-11.0	90.6	38.6	<1.0E-9	<1.0E-9
+0.0	98.5	38.6	<1.0E-9	<1.0E-9	-12.0	88.9	38.6	<1.0E-9	<1.0E-9
-1.0	99.0	38.6	<1.0E-9	<1.0E-9	-13.0	87.3	38.2	<1.0E-9	<1.0E-9
-2.0	99.2	38.6	<1.0E-9	<1.0E-9	-14.0	85.2	38.0	<1.0E-9	<1.0E-9
-3.0	99.0	38.6	<1.0E-9	<1.0E-9	-15.0	82.9	38.0	<1.0E-9	<1.0E-9
-4.0	98.6	38.6	<1.0E-9	<1.0E-9	-16.0	80.6	37.6	<1.0E-9	<1.0E-9
-5.0	99.0	38.6	<1.0E-9	<1.0E-9	-17.0	78.7	37.0	<1.0E-9	<1.0E-9
-6.0	98.6	38.6	<1.0E-9	<1.0E-9	-18.0	77.0	35.4	<1.0E-9	<1.0E-9
-7.0	99.6	38.6	<1.0E-9	<1.0E-9	-19.0	74.7	34.4	<1.0E-9	<1.0E-9
-8.0	97.4	38.6	<1.0E-9	<1.0E-9	-20.0	72.5	32.9	<1.0E-9	<1.0E-9
-9.0	95.0	38.6	<1.0E-9	<1.0E-9	-21.0	70.3	31.1	<1.0E-9	<1.0E-9

Remak : 1. The Original Signal : MER = 39.0dB, BER <1.0E-9, Test Frequency : The Curve is: 858.00MHz, OMI = 4.3%

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~-21	Digital TV(MER>30dB)
Optical return loss	(dB)	≥55		
Optical fiber connector		SC/APC	H9222LG, H9222LG./WF	
		LC/APC	H9222LG/WD	
RF Feature	Work bandwidth	(MHz)	45 ~1000	
	Flatness	(dB)	≤±0.75	
	Output level	(dBμV)	>84	AnalogTV (Pin=+2~-8dBm)
			>82	Digital TV (Pin=-13dBm)
	ALC(AGC) character (ΔVo)	(dB)	≤±1.0	Pin=+2.0~-8.0dBm
	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)	54.8	
	CNR2	(dB)	45.7	
	CTB	(dB)	≤-78	
DigitalTV Link Feature	CSO	(dB)	≤-74	
	OMI	(%)	4.3	
	MER	(dB)	≥36	
General feature	Power supply	(V)	DC+12V	
			±1.0V	
			+12VDC,420mA	
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		