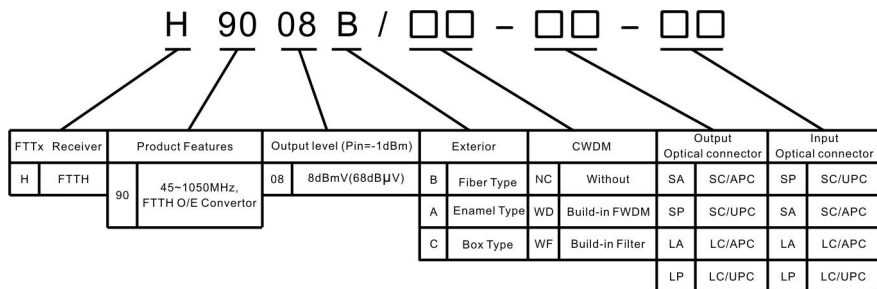


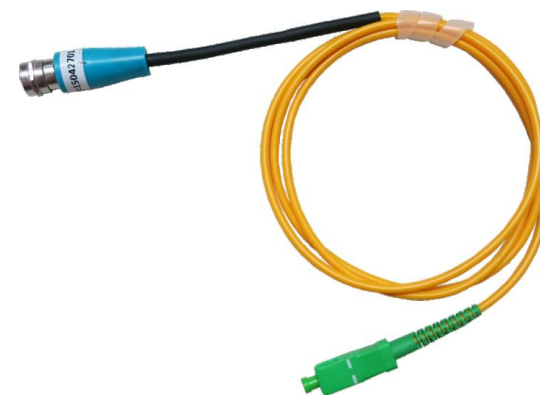
7.0 Model explanation



**H9008B、H9008B/WD、H9008B/WF**  
**FTTH CATV O/E Converter**  
**(Pin=-1dBm、Vo≥68dBμV、MER≥38dB)**

45~1050MHz

8.0 H9008 Three kinds of shape



9.0 NOTE

- 1.H9008A, H9008B and set top box (STB) of the RF input port directly connected.  
H9008C for user wiring box.
- 2 when using the RF connector, and the RF input interface must be tightened to STB. Otherwise, the ground is bad, can cause high frequency segments Digital TV signals MER degradation.
- 3.Keep the optical connector clean, the bad link will cause too low RF output level

User Manual  
 Ver. 2.2 en

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### 1.0 PRODUCT DESCRIPTION

Guangtai H9008B series CATV converter for digital television, fiber to the home. This machine adopts the high sensitivity optical receiving tube, without power supply, no power consumption. When the input optical power output level Pin=-1dBm, Vo=6 8dB V, economic, flexible application integration, application of fiber to the home network. H9008B is in the shape of a light, there are three kinds of mode selection:

- 1.H9008B :CATV operating wavelength 1260~1620nm.
- 2.H9008B /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.
- 3.H9008B /WF: built-in 1310/1490nm filter,suitable for single-fiber triple wavelength system,CATV operating wavelength 1550nm.

### 2.0 PRODUCT FEATURE

- 1.No Power required
- 2.Work bandwidth 45~1050MHz
- 3.Output Level=68dBμV (Pin=-1dBm)

### 3.0 MAIN APPLICATION

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

### 4.0 TEST DATA

The Test Frequency: 155MHz

Pin (dBm)	Vo (dBμV)	MER	BER	
			POST	PER
+2.0	77.2	39.0	<1.0E-9	<1.0E-9
+1.0	75.5	38.9	<1.0E-9	<1.0E-9
+0.0	73.7	38.8	<1.0E-9	<1.0E-9
-1.0	71.8	38.9	<1.0E-9	<1.0E-9
-2.0	69.7	38.9	<1.0E-9	<1.0E-9
-3.0	67.7	38.9	<1.0E-9	<1.0E-9
-4.0	65.8	38.9	<1.0E-9	<1.0E-9
-5.0	63.4	38.9	<1.0E-9	<1.0E-9
-6.0	61.3	38.3	<1.0E-9	<1.0E-9
-7.0	59.0	38.1	<1.0E-9	<1.0E-9
-8.0	57.8	37.8	<1.0E-9	<1.0E-9
-9.0	55.6	37.3	<1.0E-9	<1.0E-9
-10.0	53.5	36.1	<1.0E-9	<1.0E-9
-11.0	51.3	35.2	<1.0E-9	<1.0E-9
-12.0	49.3	35.4	<1.0E-9	<1.0E-9
-13.0	47.2	33.8	<1.0E-9	<1.0E-9
-14.0	45.6	32.0	<1.0E-9	<1.0E-9
-15.0	43.9	30.0	<1.0E-9	<1.0E-9
-16.0	41.9	28.0	<1.0E-9	<1.0E-9

The Test Frequency: 858MHz

Pin (dBm)	Vo (dBμV)	MER	BER	
			POST	PER
+2.0	71.2	38.5	<1.0E-9	<1.0E-9
+1.0	69.7	39.0	<1.0E-9	<1.0E-9
+0.0	68.5	39.0	<1.0E-9	<1.0E-9
-1.0	67.7	38.7	<1.0E-9	<1.0E-9
-2.0	66.2	38.8	<1.0E-9	<1.0E-9
-3.0	64.3	38.9	<1.0E-9	<1.0E-9
-4.0	62.2	38.7	<1.0E-9	<1.0E-9
-5.0	60.5	38.3	<1.0E-9	<1.0E-9
-6.0	58.6	38.2	<1.0E-9	<1.0E-9
-7.0	57.5	37.5	<1.0E-9	<1.0E-9
-8.0	55.5	37.2	<1.0E-9	<1.0E-9
-9.0	53.2	36.0	<1.0E-9	<1.0E-9
-10.0	51.2	35.0	<1.0E-9	<1.0E-9
-11.0	49.2	34.9	<1.0E-9	<1.0E-9
-12.0	47.4	33.1	<1.0E-9	<1.0E-9
-13.0	45.4	31.1	<1.0E-9	<1.0E-9
-14.0	43.5	29.0	<1.0E-9	<1.0E-9

Remark: 1. Teat Signal: MER: 39.0 (dB), BER : <1.0E-9.

2. Tx input level: 87dBμV.(OMI=4.3%)

### 5.0 TECHNICAL INDEX

	Optic feature	Unit	Index	Supplement
Optic feature	CATV Work wavelength	(nm)	1260~1620	H9008B
			1540~1563	H9008B/WF,H9008B/WD
	Pass wavelength	(nm)	1310~1490	H9008B/WD
	Channel Isolation	(dB)	≥40	1550nm&1490nm
	Responsivity	(A/W)	≥0.85	1310nm
			≥0.9	1550nm
	Receiving power	(dBm)	+2~-14	
	Optical return loss	(dB)	≥55	
Optical fiber connector		SC/APC		
RF Feature	Work bandwidth	(MHz)	45~1050MHz	
	Output level	(dBμV)	>68	Digital TV (Pin=-1dBm)
	Return loss	(dB)	≥14	47~862MHz
	Output impedance	(Ω)	75	
	Output port number		1	
	RF tie-in		F-Female	
Digital TV feature	OMI	(%)	4.3	
	MER	(dB)	≥38	Pin=-1dBm
			≥30	Pin=-13dBm
BER		<1.0E-9	Pin:+2~-14dBm	
General feature	Work temp	(°C)	-20~+55	
	Storage temp	(°C)	-40~85	
	Work relative temp	(%)	5~95	
	Size (W)×(D)×(H)	(mm)	Φ13×28	B Type (Fiber Type)

### 6.0 PRODUCT SERIES

Model	Input wavelength	CATV Operating wavelength	Data pass wavelength	Output Fiber connector	Input Fiber connector
H9008B	1310 or 1550nm	1260~1620nm	-	SC/APC	-
H9008B/WF	1310,1490/1550nm	1540~1563nm	-	SC/APC	-
H9008B/WD			1310/1490nm	SC/APC	SC/UPC

