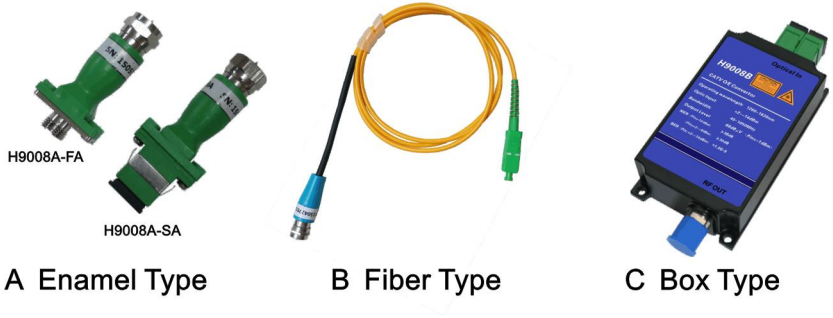
光泰 Guangtai HANGZHOU HUATAI OPTIC TECH. CO., LTD

## 7.0 Model explanation

H 90 08 A / □□ - □□

| FTTx Receiver | | Product Features | | Output level (Pin=-1dBm) | | Exterior | | CWDM | | Optical connector | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| H | FTTH | 90 | 45~1050MHz, FTTH O/E Convertor | 08 | 8dBmV(68dBμV) | B | Fiber Type | NC | Without | SA | SC/APC |
| | | | | | | A | Enamel Type | WF | Build-in Filter | FA | FC/APC |
| | | | | | | C | Box Type | | | | |

## 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.

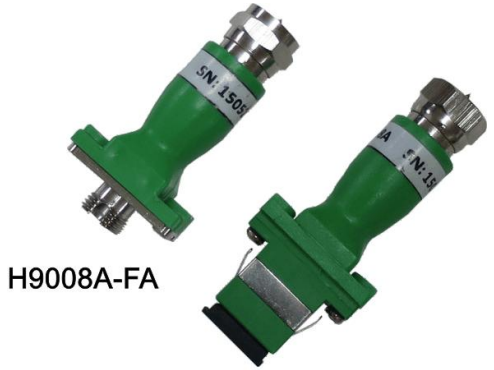
3.Keep the optical connector clean, the bad link will cause too low RF output level

# H9008A、H9008A/WF

## FTTH CATV O/E Convertor

## (Pin=-1dBm、Vo≥68dBμV、MER≥38dB)

45~1050MHz




**User Manual**

Ver. 2.3 en




Service: 0571-85029486 www.catvworld.net

## 1.0 PRODUCT DESCRIPTION

H9008A 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, can be economically and flexibly apply the integration of three networks, fiber to the home network application. H9008A appearance of enamel, there are two kinds of optical mode selection:

1.H9008A :CATV operating wavelength 1260~1620nm.

2.H9008A /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%)





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## 5.0 TECHNICAL INDEX

| | Optic feature | Unit | Index | Supplement |
|---|---|---|---|---|
| Optic feature | CATV Work wavelength | (nm) | 1260~1620 | H9008A |
| | | | 1540~1563 | H9008A/WF |
| | 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 | H9008A-SA |
| | | | FC/APC | H9008A-FA |
| 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 | |
| DigitalTV eature | OMI | (%) | 4.3 | |
| | MER | (dB) | ≥38 | Pin=-1dBM |
| | | | ≥30 | Pin=-13dBm |
| | BER | | <1.0E-9 | Pin:+2~-14dBm |
| General feature | Work temp | (℃) | -20~+55 | |
| | Storage temp | (℃) | -40~85 | |
| | Work relative temp | (%) | 5~95 | |
| | Size (W)×(D)×(H) | (mm) | 23×53×12 | A Type (Enamel Type) |
| | | | Φ13×28 | B Type (Fiber Type) |
| | | | 50×88×22 | C Type (Box Type) |

## 6.0PRODUCT SERIES

| Model | Input wavelength | CATV Operating wavelength | Data pass wavelength | Output Fiber connector |
|---|---|---|---|---|
| H9008A-SA | 1310 or 1550nm | 1260~1620nm | - | SC/APC |
| H9008A/WF-SA | 1310,1490/1550nm | 1540~1563nm | - | SC/APC |
| H9008A-FA | 1310 or 1550nm | 1260~1620nm | - | FC/APC |
| H9008A/WF-FA | 1310,1490/1550nm | 1540~1563nm | - | FC/APC |



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