

SOFTTEL[®]

SR100 & SR100/WF

FTTH CATV Optic to RF Convertor

(Pin=-1dBm、Vo≥68dBμV、MER≥38dB)

45~1050MHz



SR100-SC

User Manual v2.0 EN

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1.0 BRIEF INTRODUCTION

SR100 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 $P_{in} = -1\text{dBm}$, $V_o = 6\text{ dB V}$, can be economically and flexibly apply the integration of three networks, fiber to the home network application. SR100 appearance of enamel, there are two kinds of optical mode selection:

1. SR100: CATV operating wavelength 1260~1620nm.
2. SR100/WF: Built-in 1310/1490nm filter, suitable for single-fiber triple wavelength system, CATV Operating wavelength 1550nm.

2.0 PRODUCT DISPLAY



Enamel Type



Fiber Type



Box Type

3.0 PRODUCT FEATURE

1. No Power required
2. Work bandwidth 45~1050MHz
3. Output Level=68dB μ V ($P_{in} = -1\text{dBm}$)

4.0 MAIN APPLICATION

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

5.0 TEST DATA

The Test Frequency: 155MHz

The Test Frequency: 858MHz

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

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%)

6.0 TECHNICAL INDEX

Optic feature	Optic feature	Unit	Index	Supplement
	CATV Work wavelength	(nm)	1260~1620	SR100
			1540~1563	SR100/WF
	Channel Isolation	(dB)	≥40	1550nm&1490nm
	Resposibility	(A/W)	≥0.85	1310nm
			≥0.9	1550nm
	Receiving power	(dBm)	+2~-14	
	Optical return loss	(dB)	≥55	
	Optical fiber connector		SC/APC	SR100-SC
		FC/APC	SR100-FC	
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)

7.0 ORDRE INFORMATION

Model	Input Wavelength	CATV Operating Wavelength	Data Pass Wavelength	Output Fiber Connector
SR100-SC	1310 or 1550nm	1260~1620nm	-	SC/APC
SR100/WF-SC	1310,1490/1550nm	1540~1563nm	-	SC/APC
SR100-FC	1310 or 1550nm	1260~1620nm	-	FC/APC
SR100/WF-FC	1310,1490/1550nm	1540~1563nm	-	FC/APC

8.0 NOTE

1. SR100, SFT9008B and set top box (STB) of the RF input port directly connected.
SR100B 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

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