CATV RF SYSTEM



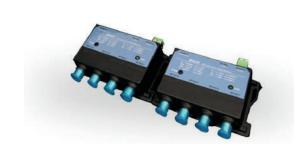
LB Multi Channel CATV Receiver

LB series multi channel CATV receiver, features 47~862MHz bandwidth, output level from Vo=88dBµV (4Ch Pin=-2dBm) to Vo=103dBuV (2Ch Pin=-2dBm), suitable for FTTP, FTTB, FTTN, FTTC, as RFTV broadcast network's RX unit. With the special low noise matching circuit Under 3.8% modulation, very low optical power is needed to achieve 45dB CNR. When transmitting in full channels and with receiving power of -10dBm, the CNR can still reach high index of 45dB.

The product built-in RF inter-stage gain adjustment. All receiving optical power in the range of +3dBm to -12dBm has good linearity. According to different receiving optical power, the user can choose high CNR and suitable output level.

The following options are available for different applications.

- -F: built-in channel filter, RFTV operating in1550nm wavelength.
- -C: built-in CWDM, RFTV operating in 1550nm wavelength, and reach GEPON ONU through 1310/1490nm wavelength.



FEATURES

- Miniature design with multiple outputs.
- Extra-low noise (3.8% modulate, -10dBm receive, CNR ≥ 45dB)
- Receiver Optical power in the range of +3dBm to -12dBm with excellent linearity
- RF 47~862MHz with good flatness (FL≤±1.0dB)
- Built-in inter-stage gain adjustment, high CNR and suitable output level can be achieved according
- to different receiving optical power.
- Zinc. die-casting metal housing
- Low power consumption, high cost performance

SPECIFICATIONS

Optic Features			Remark
Operating wavelength	1210~1600	nm	LB4CR4888
	1260~1600		LB4CR48100 & LB2CR48103
	1540-1560		-F & -C Options
Input wavelength	1310, 1490/1550	nm	LB4CR4888-F & -C
Pass wavelength	1310, 1490	nm	LB4CR4888-F & -C,
Channel isolation	>40	dB	LB4CR48100-C,
Responsivity	>0.85	A/W	LB2CR48103-CF & -C options
	>0.9		1310nm
Receiving power	+3~ -12	dBm	1550nm
Optical return loss	>55	dB	
Optical fiber connector	SC/APC		LC/APC for -C option
RF Specifications			
Bandwidth	47-862	MHz	
Flatness	<±1.0	dB	
Output level (nominal/max)	88.0	dBuV	Pin: -2dBm, LB4CR4888
	100		Pin: -2dBm, LB4CR48100
	103.5		Pin: -2dBm, LB2CR48103

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Output level adjustment	0~18	dB	MGC
Return loss @ 47-862MHz	14	dB	47~862MHz
Output impedance	75	Ω	
Output port number	2		LB2CR48103
	4		LB4CR4888 & LB4CR48100
RF tie-in	F-Female		
Test channel	PAL D/59Ch	Ch	NTSC /80Ch
OMI	3.8	%	
CNR1	56.6	dB	Pin= -2dBm
CNR2	48.5	dB	Pin= -8dBm
СТВ	<-63	dB	Vo<88dBµV-LB4CR4888
CSO	<-63	dB	Vo<100dBµV-LB4CR48100
HUM	<-60	dB	Vo<103.5dBµV-L2CR48103
General Specifications			
Power supply	DC +12V	V	LB4CR4888
	DC +24V		LB4CR4100 & L2CR48103
Power consumption	<3	W	+12VC, 190mA for LB4CR4888
	<10		+24VC, 400mA for
Working temperature	-20 ~ +50	°C	LB4CR48100 & L2CR48103
Storage temperature	-40 ~ +85	°C	
Relative humidity	5~59	%	
Dimension	118×73×29	mm	LB4CR4888
	133×65×58.5		LB4CR48100 & L2CR48103

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ORDERING INFORMATION

PN	RF Power (dBuV)	Number of RF outputs	SNMP Network Management
LB2CR4803-cdd-x	103	2	
LB4CR4888-cdd-x	88	4	
LB4CR4800-cdd-x	100	4	
C:	С	1310/1490 & 1550nm CWDM filter	
	F	1550nm filter	
dd:	SA	SC/APC	
	LA	LC/APC	with SNMP Network Management
X:	М		without SNMP Network Management
	N		