HR2071A, HR2071B

HFC 7 ways return path optical receiver 1 way reverse optical transmitter

PRODUCT DESCRIPTION

HR2071 series of HFC seven-way return path receiver, one way reverse optical transmitter, mainly used at the head-end to convert upstream optical signal to RF signal at the user side. Moreover, send back the data at sub-HE to main head-end through one way of DFB return path transmitter. Eight independent units integrated into a 1RU 19" casing to provide service for HFC network terminal of ONTs. The receivers′ low noise design of -22dBm receive sensitivity, allow to supply service to farther distance.

There are two versions of this receiver. HR2071A with LCD on the front panel, HR2080B without LCD. All receivers are temperature tolerance type can be installed in any network surroundings including out-door type. Both of these two types can adopt SNMP function, which can control the front panel to realize optimization work at the head-end and remote installment.

PRODUCT FEATURES

▶7 low noise optical receiver, up to -22dBm receive sensitivity.

▶One way return path transmitter can send back the data at sub-HE to main head-end.

▶1200~1620nm wide wavelength

▶SNMP network management function option

▶RF output level can be adjusted by network

▶Built-in 1+1 backup power, redundant A/B inputs (option)

▶Good performance of resistance to temperature, allow -40~+65℃ operating temperature

▶Simple mode, high density, 19” 1RU mount, contain 8 pcs of independent optical receiver and optical transmitter

▶Excellent P/P ratio

MAIN APPLICATION

▶HFC network sub-HE

TECHNICAL INDEX

Up-stream optical receiver

Performance				Index			Supplement
				Min.	Typ.	Max.	
Optical feature	Operating wavelength		(nm)	1260		1620	
	Responsivity	R13	(A/W)	0.85	0.95		1310nm
		R15		0.85	1.0		1550nm
		R16			0.85		1610nm
	Optical link budget loss		(dB)	17			
	Receiving power	Typical	(dBm)	-17		-7	
		Sensitivity			-23	-22	Pr
		overload		0	+1		Po
	Number of optical receiver		(pcs)		7		
	Return loss		(dB)	50			
	Optical connector			SC/APC			LC/APC option
RF feature	Operating bandwidth		(MHz)	5		200	
	RF output level		(dBmV)	30		60	
	RF gain adjustable		(dB)	-30		0	settable=1dB
	Flatness		(dB)	-0.75		+0.75	
	Return loss		(dB)	16			
	RF test point/monitor		(dB)	-20.5	-20	-19.5	
	Noise power ratio		(dB)	41			Link loss >15dB
General feature	Power supply	AC	(V)	90	220	265	
		DC		-30	-48	-72	
	Power consume		(W)			96	
	Operating temp.		(℃)	-40		+65	
	Relative humidity		(%)	5		95	
	Size (W)×(D)×(H)		(mm)	483×305×44			

Up-stream optical transmitter

Performance			Index			Supplement
			Min.	Typ.	Max.	
Optical feature	Reverse transmitter operating wavelength	(nm)		1310		
				1550		
				1470		CWDM 1470
				1490		CWDM 1490
				1510		CWDM 1510
				1530		CWDM 1530
				1550		CWDM 15500
				1570		CWDM 1570
				1590		CWDM 1590
				1610		CWDM 1610
	Type of laser with return path	(dBm)	DFB without ISO			DFP
			DFB with ISO			DFI
	Output power	(mW)	1.2			1dBm
			2			3dBm
			2.5			4dBm
			3			5dBm
	Return loss	(dB)	50			
	Output power monitor	(V/mW)		1		
	Optical connector		SC/APC			
RF feature	Operating bandwidth	(MHz)	5		30	Duplexer 30/47
					42	Duplexer 42/54
					65	Duplexer 65/87
	Flatness	(dB)	-0.5		+0.5	5~65MHz
	Noise power ratio	(dB)	41			Link loss ≥15dB
	Input level	(dBmV)		20		
	Return loss	(dB)	16	18		5~65MHz
	Input level monitor	(dB)		20		

MODEL EXPLANATION

Optical Receiver

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In-door CATV optical receiver	Bandwidth		Reception sensitivity		Number of optical receiver		Number of optical transmitter		Whether has LCD on the front panel		Network management		RF output port position		Optical port position		Connetor		Power supply	
	1	100MHz	0	-22dBm	4	4 pcs	0	None	A	With LCD	N	No	F	Front panel	F	Front panel	SA	SC/APC	22	220VAC
	2	200MHz	1	-32dBm	7	7 pcs	1	1 pcs	B	Without LCD	W	With	B	Back panel	B	Back panel	FA	FC/APC	11	110VAC
	7	750MHz			8	8 pcs											LA	LC/APC	48	-48VDC
	8	870MHz																		
	9	1000MHz																		

Optical Transmitter

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Output power		Type of laser with return path		Operating wavelength	
1	1dBm, 1.2mW	DFO	DFB without ISO	1310	1310nm
3	3dBm, 2.0mW	DFI	DFB with ISO	1550	1550nm
4	4dBm, 2.5mW			1470	CWDM 1470nm
5	5dBm, 3.0mW			1490	CWDM 1490nm
				1510	CWDM 1510nm
				1530	CWDM 1530nm
				1550	CWDM 1550nm
				1570	CWDM 1570nm
				1590	CWDM 1590nm
				1610	CWDM 1610nm