H9925 FTTH bi-direction optical recevier (HFC)

PRODUCT DESCRIPTION

H9925 is a type of bi-directional optical receiver with high performance, low cost and economical. It is applicable to various application of the HFC network fiber to the home (FTTH), and can provide high reliability analogue, digital video frequency and data bi-directional transmission for the HFC network.

H9925S: Single fiber bi-direction, built-in WD1315 CWDM.

H9925D: Dual fiber bi-direction, without CWDM.

PRODUCT FEATURES

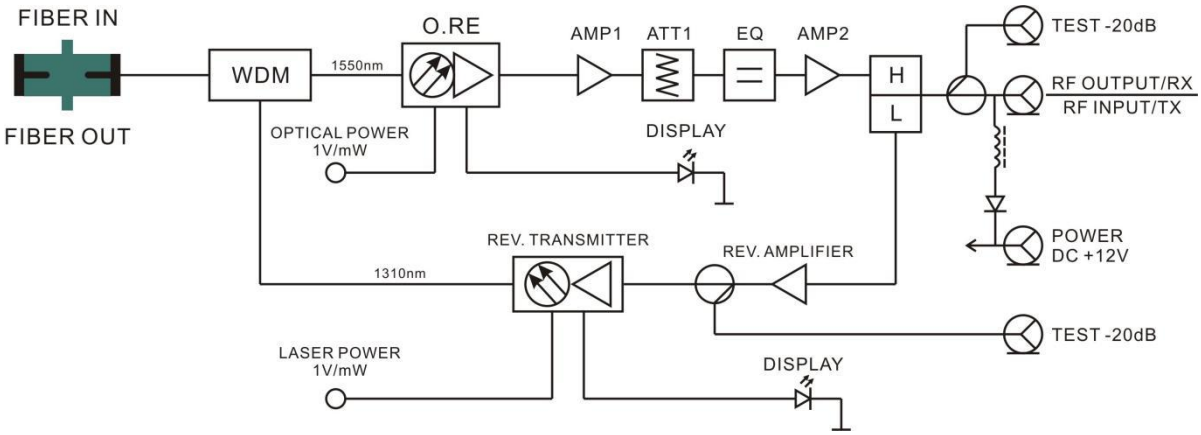
- ▶Excellent linearity and flatness
- ▶Extremely good return loss
- ▶Compact construction, lower power consumption
- ▶WDM option to achieve single fiber bi-directional transmission
- ▶Multi-communications transmitting wavelength and power optional

MAIN APPLICATION

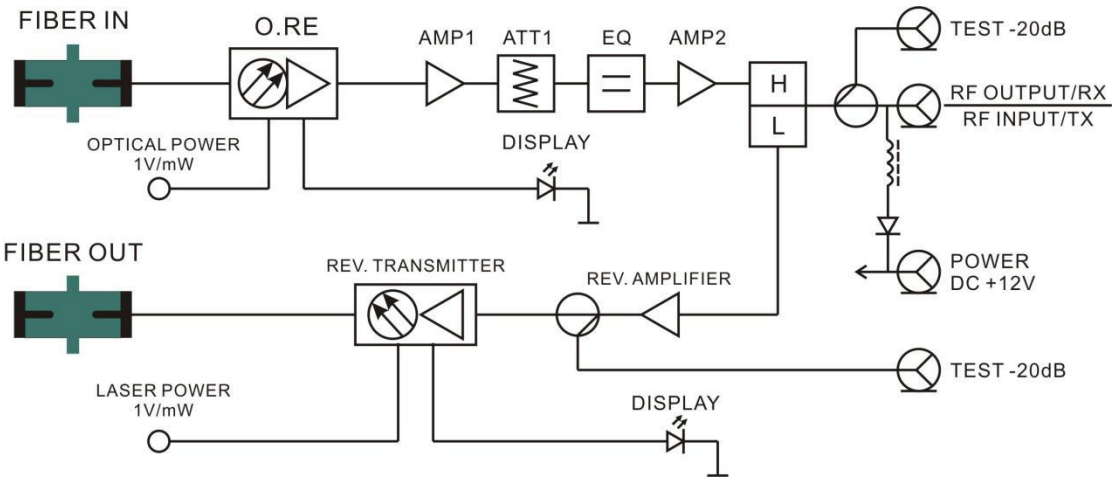
- ▶FTTH (HFC)

BLOCK DIAGRAM

H9925D (Dual fiber bi-direction, without CWDM)



H9925S (Single fiber bi-direction, built-in WD1315 CWDM)



TECHNICAL INDEX

Down-stream Optical receiver

Performance			Index			Supplement
			Min.	Typ.	Max.	
Optical feature	Operating wavelength	(nm)	1260		1620	
	Receiving power	(dBm)	-6		+3	
	Responsivity	(A/W)	0.85			1310nm
			0.9			1550nm
	Return loss	(dB)	50			
	Input power monitor	(V/mW)		1		
	Optical connector		SC/APC			
RF feature	Maximum operating bandwidth	(MHz)			870	087
					1000	100
					1100	110
	Minimum operating bandwidth	(MHz)	47			Duplexer 30/47
			54			Duplexer 42/54
			87			Duplexer 65/87
	Flatness	(dB)	-0.5		+0.5	54~870MHz
			-1		+1	870~1100MHz

	Output return loss	(dB)	16			54~870MHz
			12			870~1100MHz
	Output level	(dBmV)		25		
	Output level monitor	(dB)		-20		
	Impedance	(Ω)		75		
	RF connector			F-female		
Link feature	CNR	(dB)	52			60CH, Pin=0dBm
	CTB	(dB)			-65	99CH, Vo≤27dBmV
	CSO	(dB)			-60	
	HUM	(dB)			-60	
General feature	Power supply	(V)		+12		
	Power consume	(W)		4		
	Operating temp.	(℃)	-20		+65	
	Storage temp.	(℃)	-40		+80	
	Relative humidity	(%)	5		95	
	Size (W)×(D)×(H)	(mm)	130×106×33			

Up-stream Reverse 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)	F-P without ISO			FPO
			F-P with ISO			FPI
			DFB without ISO			DFP
			DFB with ISO			DFI
	Output power	(dBm)	1			1.2mW
			3			2mW
			4			2.5mW
			5			3mW
	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)	37			F-P, link loss≥15dB
			41			DFB, link loss⩾15dB
	Input level	(dBmV)		20		
	Return loss	(dB)	16	18		5~65MHz
	Input level monitor	(dB)		20		

MODEL EXPLANATION

H99 25 S – 087 / 54 – 1 FPO – 1310 – SA

HFC network FTTH bi-direction optical receiver	Output level Pin=0dBm		Mode of optical fiber		Down-stream max. Work frequency		Down-stream min. Work frequency		Output power		Type of laser with return path		Operating wavelength		Connector	
	25	25dBmV	S	Single fiber bi-direction with CWDM	087	870MHz	47	47MHz, duplexer 30/47	1	1dBm, 1.2mW	FPO	FP without ISO	1310	1310nm	SA	SC/APC
			D	Dual fiber bi-direction withoutCWDM	100	1000MHz	54	54MHz, duplexer 42/54	3	3dBm, 2.0mW	FPI	FP with ISO	1550	1550nm	FA	FC/APC
					110	1100MHz	87	87MHz, duplexer 65/87	4	4dBm, 2.5mW	DFO	DFB without ISO	1470	CWDM 1470nm	LA	LC/APC
									5	5dBm, 3.0mW	DFI	DFB with ISO	1490	CWDM 1490nm		
													1510	CWDM 1510nm		
													1530	CWDM 1530nm		
													1550	CWDM 1550nm		
													1570	CWDM 1570nm		
													1590	CWDM 1590nm		
													1610	CWDM 1610nm		