

HRS-26D/P Series  
47~2600MHz  
Digital TV & Satellite TV  
PIN optical receiver

Technical Specification

HANGZHOU HUATAI OPTIC TECH. CO., LTD

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## **1.0 PRODUCT DESCRIPTION**

Huatai HRS-26D/P optical receiver, adopting high-sensitivity PIN detector, receiving sensitivity is -22dBm, typical value -13dBm. It can receive analogue and digital signal with the frequency of 47~2600MHz on a single fiber, and compatible with any FTTx PON to achieve triple-network combination between Analog TV(<10CH), Digital TV (DVB-C, DVB-T), Satellite TV (DVB-S) and Internet & FTTH.

HRS-26D/P-113-00: Adopting 1U 19" standard casing, the working parameters of the unit is controlled by micro-processor. LCD on the front panel can display the working status and failure diagnosis. Standard RS232 communication interface, SNMP network management function, which is suitable for project application.

HRS-26D/P-213-00: Desktop, minimum exterior structure in the industry.

HRS-26D/P-313-00: Wall-mounted.

HRS-26D/P-913-00: Rainproof type, suitable for outdoor installation.

HRS-26D/P-213-WD: Desktop, suitable for FTTx PON. Built-in WD1543 which can un-seamed connect with ONU in EPON, GPON system.

HRS-26D/P-313-WD: Wall-mounted, suitable for FTTx PON. Built-in WD1543 which can un-seamed connect with ONU in EPON, GPON system.

## **2.0 PRODUCT FEATURE**

- PIN optical receiving, -22dBm receiving sensitivity, typical value: -13dBm.
- High linearity, suitable for Digital TV & SAT-IF application.
- Wide band type: 47~2600MHz
- 10CH Analog TV, Digital TV (DVB-C), Satellite TV (DVB-S) signal can receive via a single fiber at the same time.
- It can be compatible with any FTTx PON technology.
- Different exterior structures. Suitable for FTTH, FTTP, FTTB, FTTC
- Excellent P/P Ratio.

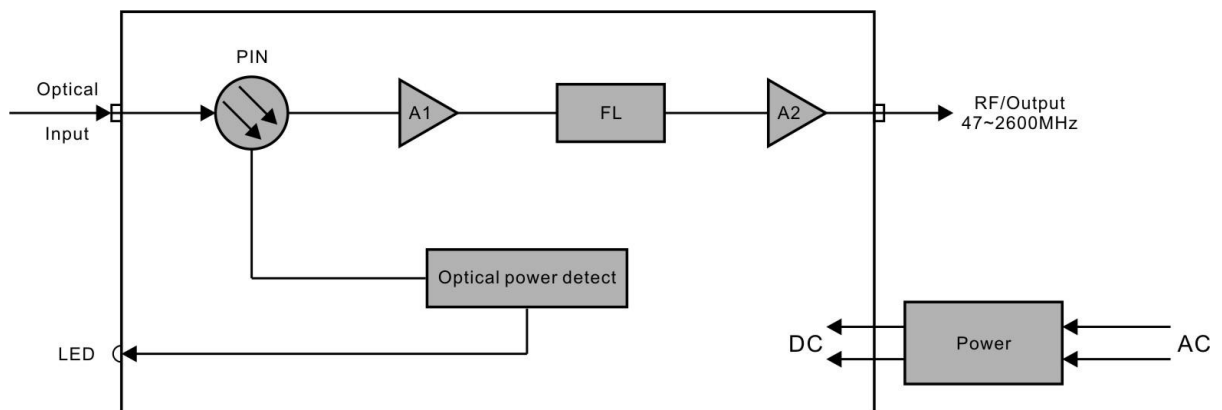
### 3.0 Technical index

Performance			Index			Supplement	
			Min.	Typ.	Max.		
Optical feature	Operating wavelength	(nm)	1260		1620	HRS-26D/P-×××-00	
			1540		1563	HRS-26D/P-×××-WD	
	Pass wavelength	(nm)		1310/1490		HRS-26D/P-×××-WD	
	Reasonability	R13	(A/W)	0.9			1310nm
		R15		0.95			1550nm
	Receiving optical power	Typical	(dBm)		-13		
		Sensitivity				-22	Pr
		Overload		+3			Po
	Optical receiving PD			PIN			
	Return loss	(dB)	50				
Optical connector			SC/APC or LC/APC				
RF feature	Working bandwidth	(MHz)	47		2600		
	Output level	(dBmV)	10		30		
	Flatness	(dB)	-1.0		+1.0	47~860MHz	
			-0.5		+0.5	40MHz	
			-1.5		+1.5	950~2400MHz	
	Output Return loss	(dB)	14			47~860MHz	
			12			950~2400MHz	
	Channel loading	(CH)			10	Analogue TV	
					64QAM	Digital TV	
					36	QPSK or FM	
	IM3	(dB)	-65				
	HUM	(dB)	-60				
	IP1	(dBm)	18				
Output impedance	( $\Omega$ )		75		Option 50 $\Omega$		
RF connector		F-female			75 $\Omega$		
		SMA-F			50 $\Omega$		
General feature	SNMP interface		RJ45			HRS-26D/P-113	
	Communication interface		RS232			HRS-26D/P-113	
	Power supply	AC	(V)	90	220	265	

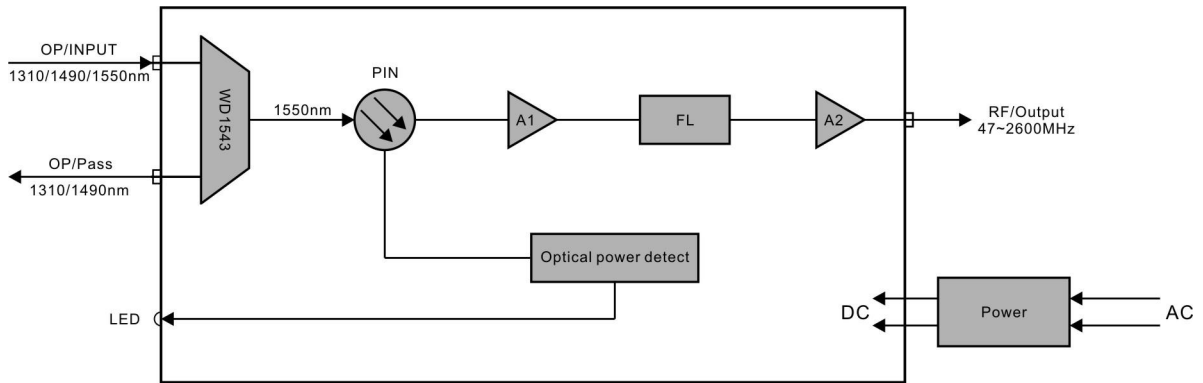
	DC		-30	-48	-72	
Power consumption	(W)				5	Single PS
Operating temp.	(°C)		-5		-65	
Storage temp.	(°C)		-40		+85	
Relative humidity	(%)		5		95	
Size	(")	19 × 14.5 × 1.75			HRS-26D/P-113	
	(mm)	59 × 98 × 23			HRS-26D/P-213	
		117 × 72 × 29			HRS-26D/P-313	
		150 × 135 × 98			HRS-26D/P-913	

## 4.0 Optical receiver electrical schematic diagram

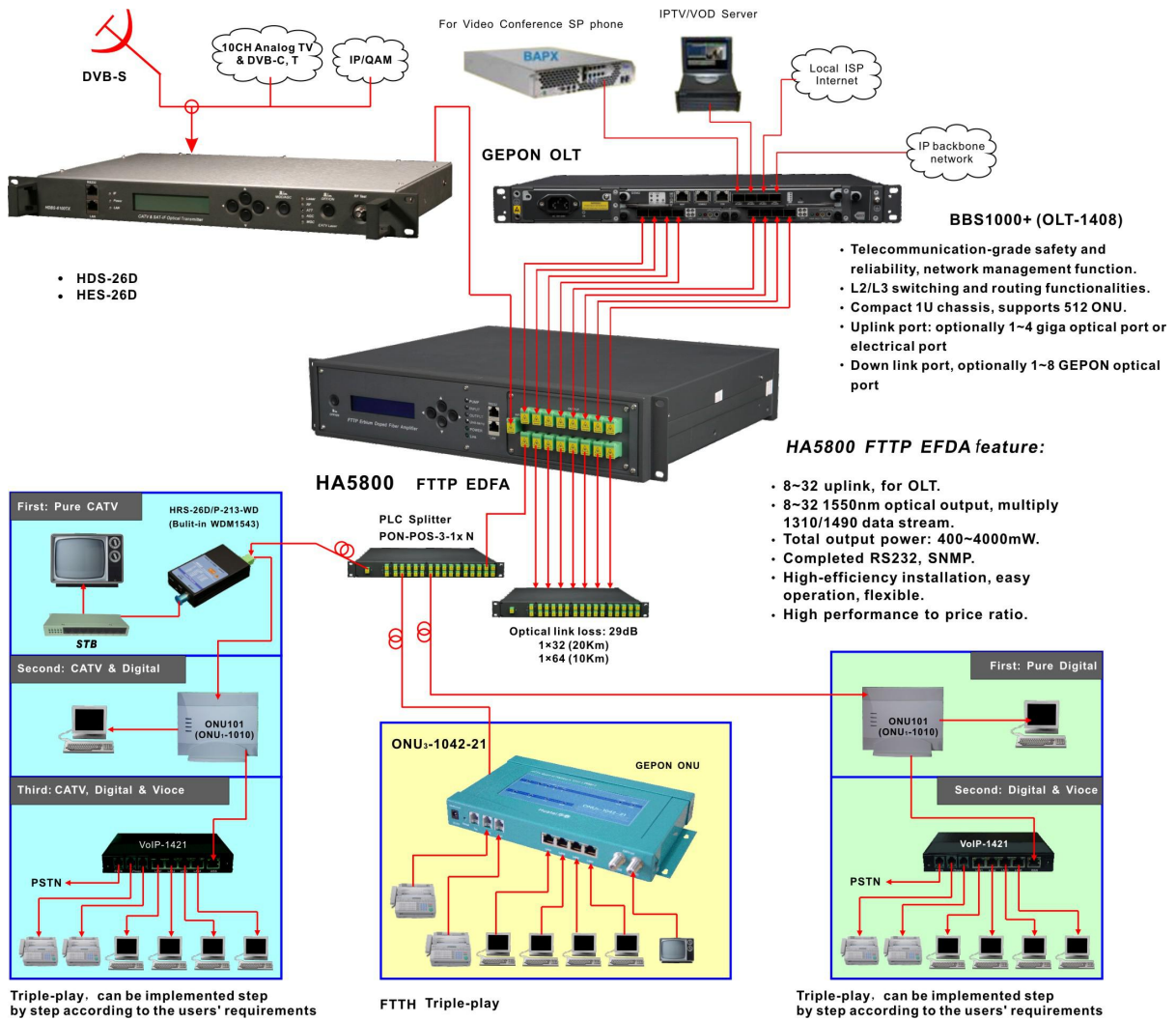
### 4.1 HRS-26D/P-□13-00



## 4.2 HRS-26D/P-□13-WD



## 5.0 Application of HRS-26D/P in FTTx PON



## 6.0 Product series

Model	Optical receiving PD	Typical value of receiving power	Exterior structure	WDM
HRS-26D/P-113-00	PIN	-13dBm	19" 1RU	None
HRS-26D/P-213-00	PIN	-13dBm	Desktop	None
HRS-26D/P-213-WD	PIN	-13dBm	Desktop	Built-in WDM
HRS-26D/P-313-00	PIN	-13dBm	Wall-mounted	None
HRS-26D/P-313-WD	PIN	-13dBm	Wall-mounted	Built-in WDM
HRS-26D/P-913-00	PIN	-13dBm	Outdoor Rainproof	None

## 7.0 Ordering information

HRS - 26D / P - 13 - 00 - 00 / 00 - 00

Product type		Operating bandwidth		Optical receiving PD type		Product feature		Reception sensitivity		WDM		Optical port position		Connector		Power supply			
HES	Satellite Externally Modulated Optical Transmitter	26A	47-862MHz & 950-2600MHz Analog TV + SAT-IF	P	PIN	1	19" standered type	13	-13dBm	00	Without WDM	F	Front panel	SA	SC/APC	48	-48VDC		
				A	APD	2	Small ferrous box, desk-type	24	-24dBm	WD	With WDM	B	Back panel	FA	FC/APC	22	220VAC		
HDS	Satellite Direct Modulated Optical Transmitter	26D	47-2600MHz Digital TV + SAT-IF			3	Small aluminum box, wall-mounted type							LA	LC/APC	11	110VAC		
HRS	Satellite Optical Receiver	26S	950-2600MHz SAT-IF			9	Aluminum die-casting rainproof type												
						0	OEM												
						7	Distinctive appearance performance												
						8	2U, 3U plug-in												