

HDS-26D (47~2600MHz)

Direct Modulated Optical Transmitter

PRODUCT DESCRIPTION

Guangtai HDS-26D series optical transmitter, adopt high linearity DFB laser, modulated directly. It can transmit 47~2600MHz digital TV, move media broadcast (MMB, CMMB) and satellite live telecast TV (DBS, SAT-IF) signal.

Optical operating wavelength of HDS-26D is optional as 1310nm or 1550nm.

1550nm optical transmitter, ITU standard wavelength can be selected, suitable for DWDM to realize network-upgrading and capability-expansion. It can work together with EDFA, YEDFA to amplify the optical power. It can be compatible with any FTTx PON technology.

HDS-26D has various wavelengths and lasers to select.

HDS-26D-1- □□ -A1310: 1310nm with cooling DFB laser.

HDS-26D-1- □□ -A1550: 1550nm with cooling DFB laser.

HDS-26D-1- □□ -A15 □□ : Cooling DFB laser, C-Band ITU wavelength adjustable.

HDS-26D- □- □□ -B1310: 1310nm non-cooling optical isolated DFB laser.

HDS-26D- □ - □□ -B1550: 1550nm non-cooling optical isolated DFB laser.

HDS-26D- □ - □□ -B1 □□□ : CWDM wavelength non-cooling DFB laser.



PRODUCT FEATURES

- ▶ High wide band: 47~2600MHz.
- ▶ Suitable for Digital TV & Satellite TV application.
- ▶ One fiber can transmit signal of 10 sets of TV, DTV and satellite TV.
- ▶ HGHL DFB laser, can choose cooling and non-cooling.
- ▶ 1310nmTX, output power upto 30mW.
- ▶ 1550nmTX, ITU wavelength optional, apply in DWDM, reach network promotion and dilatation.
- ▶ 1550nmTX can be amplified by EDFA, YEDFA to cover large-scaled FTTH, compatible with any FTTx PON technology.
- ▶ Multiple performance frame, suitable for application of different scale network
- ▶ Excellent P/P ratio.

MAIN APPLICATION

- ▶ FTTH for Digital TV & Satellite TV
- ▶ FTTx PON, (EPON, GPON)
- ▶ Move TV media broadcast (MMB, CMMB)
- ▶ Other digital video application

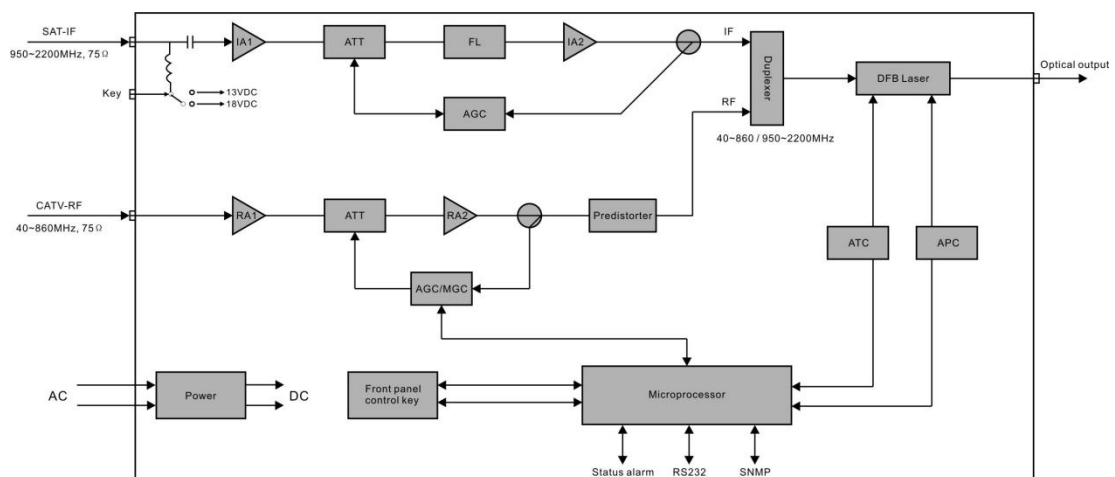
TECHNICAL INDEX

Performance				Index			Supplement
				Min.	Typ.	Max.	
Optical feature	Laser type	A type		Cooling DFB			A1310, A1550, A15 □□
		B type		Non-cooling DFB with optical isolation			B1310, B1550
	Operating wavelength		(nm)	1300	1310	1320	A1310, B1310
				1530	1550	1563	A1550, B1550
					ITU-G		A15 □□
				1270	CWDM	1610	B1 □□
	Wavelength adjustable range			-1.6		+1.6	A15 □□
	Wavelength adjustable mode			In steps $\pm 0.01\text{nm}$			A15 □□
	Wavelength stability		(Pm/°C)	-1		0	TC=20~70°C
	Equivalent noise temperature		(dB/Hz)			-155	
	Side mode suppression ratio		(dB)	35			
	Optical isolation		(dB)	30			
	SBS		(dBm)	16			1310nm
				18			1550nm
	Optical output power		(mW)	1		10	B1310
				10		30	A1310
				1		4	B1550, B1 □□□
				4		10	A1550, A15 □□
	Return loss		(dB)	50			
	Optical connector			SC/APC & LC/APC			
RF feature	Operating bandwidth		(MHz)	47		2600	
	Input range		(dBm)	-40		-25	
	Flatness		(dB)	-1.0		+1.0	45~862MHz
				-0.5		+0.5	40MHz
				-2.0		+2.0	950~2600MHz
	Return loss		(dB)	14			47~862MHz
				10			950~2400MHz
	Channel loading		(CH)		64QAM		Digital TV
					36		QPSK or FM

General Feature	CNR		(dB)	28			
	CTB		(dB)			-36	
	CSO		(dB)			-36	
	Input impedance		(Ω)	75			Optional 50 Ω
	RF connector			F-female		75 Ω	
				SMA-F		50 Ω	
	SNMP			RJ45		HDS-26D-1-□□	
	Communication interface			RS232		HDS-26D-1-□□	
	Power supply	AC	(V)	90	220	265	
		DC		-30	-48	-72	
	Power consumption		(W)			5	Single PS
	Operating temp		($^{\circ}\text{C}$)	-5		+65	
	Storage temp		($^{\circ}\text{C}$)	-40		+85	
	Relative humidity		(%)	5		95	

Size			(")	19 × 14.5 × 1.75		HDS-26D-1-□□	
				88 × 50 × 22		HDS-26D-2-□□	
				98 × 59.5 × 24		HDS-26D-3-□□	

HDS-26D ELECTRICAL SCHEMATIC DIAGRAM



PRODUCT SERIES

Model	Wavelength	Output power (mW)	Performance	Connector
HDS-26D-1-10-A1310-SA	1310nm Cooling DFB	10	19" Stander type	SC/APC
HDS-26D-1-12-A1310-SA		12		SC/APC
HDS-26D-1-14-A1310-SA		14		SC/APC
HDS-26D-1-16-A1310-SA		16		SC/APC
HDS-26D-1-18-A1310-SA		18		SC/APC
HDS-26D-1-20-A1310-SA		20		SC/APC
HDS-26D-1-24-A1310-SA		24		SC/APC
HDS-26D-1-30-A1310-SA		30		SC/APC
HDS-26D-1-01-B1310-SA	1310nm Non-cooling DFB	1		SC/APC
HDS-26D-1-02-B1310-SA		2		SC/APC
HDS-26D-1-03-B1310-SA		3		SC/APC
HDS-26D-1-04-B1310-SA		4		SC/APC
HDS-26D-1-06-B1310-SA		6		SC/APC
HDS-26D-1-08-B1310-SA		8		SC/APC
HDS-26D-1-10-B1310-SA		10		SC/APC
HDS-26D-1-04-A1550SA	1550nm Cooling DFB	4		
HDS-26D-1-06-A1550SA		6		SC/APC
HDS-26D-1-08-A1550-SA		8		SC/APC
HDS-26D-1-10-A1550-SA		10		SC/APC
HDS-26D-1-01-B1550-SA	1550nm Non-cooling DFB	1		SC/APC
HDS-26D-1-02-B1550-SA		2		SC/APC
HDS-26D-1-03-B1550-SA		3		SC/APC
HDS-26D-1-04-B1550-SA		4		SC/APC
HDS-26D-2-01-B1310-SA	1310nm Non-cooling DFB	1	B-Type Desktop type	SC/APC
HDS-26D-2-02-B1310-SA		2		SC/APC
HDS-26D-2-03-B1310-SA		3		SC/APC
HDS-26D-2-04-B1310-SA		4		SC/APC
HDS-26D-2-06-B1310-SA		6		SC/APC
HDS-26D-2-08-B1310-SA		8		SC/APC

Product type		Operating bandwidth		Product feature		Output power		Type of laser		Tx wavelength & transmission distance		Optical port position		Connector		Power supply	
HDS	Satellite Direct Modulated Optical Transmitter	26D	47~2600MHz Digital TV + SAT-IF	1	19" standered type	01	1mW	A	Cooling DFB	1310	1310nm	F	Front panel	SA	SC/APC	48	-48VDC
				2	B-type Desktop type, TX adopt non-cooling DFB laser direct type.	02	2mW	B	Non-cooling DFB	1550	1550nm	B	Back panel	FA	FC/APC	22	220VAC
						03	3mW			15xx	ITU			LA	LC/APC	11	110VAC
				3	C-type Desktop type, TX adopt non-cooling DFB laser direct type.	04	4mW	1xx	CWDM								
						06	6mW										
				08	8mW												
				10	10mW												
				12	12mW												
				14	14mW												
				16	16mW												
				18	18mW												
				20	20mW												
				24	24mW												
				30	30mW												