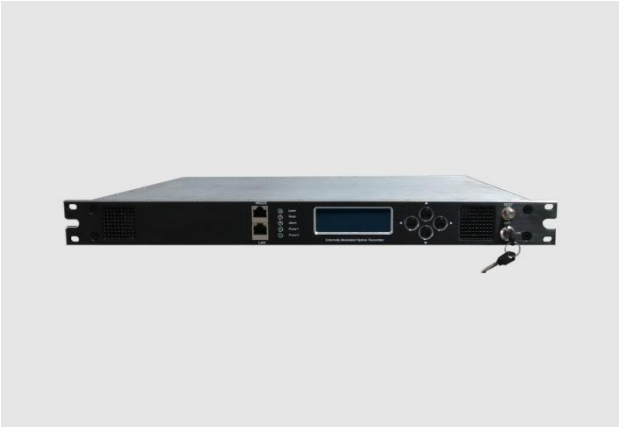
HT8800 NGB (Next Generation Broadcasting)

Full C-band tunable (tuning range>35nm)

1550nm Externally Modulated Optical Transmitter

DESCRIPTION



HT8800 all C band tunable CATV external modulation optical transmitter, is an industry-leading and pioneer product. The tunable range of wavelength: 1528.77~1563.86nm, the adjustable wavelength: >35nm. With the traditional ITU standard wavelength ±0.8nm（±100GHz）can tunable, is a completely new concept and application ranges.

A HT8800 including all C band's useable wavelength, Its database stores 89 ITU standard wavelength channels (C band 0.4nm gallery interval). Users can achieve the selection, switch and route etc wavelength management function quickly, accurately. High wavelength accuracy, high wavelength stability, fast tuning rate, perfectly adapt the NGB DWDM system. It's high wavelength flexibility and replaceability will become the development direction of next generation broadcast television network（NGB） external modulation optical transmitter.

The new generation fiber optical communication technology with DWDM nuclear technology should be the NGB's development direction. The DWDM technology can provide large-capacity backbone network and metropolitan area networks for NGB, while PON (passive optical network) should be the mainstream technology of NGB subscriber access network.

The DWDM technology can take full advantage of existing fiber optical resource, large-capacity, the network with high flexibility, economic and high reliability. The wavelength can be convertible and management is the DWDM system's core equipment of external modulation optical transmitter.

Product feature

- Full C-Band tunable, tunable range >35nm
- 0.4nm interval, 89 ITU channels, database storage
- ITU cord, frequency, Wavelength,three tunable ways, flexible and convenient
- Rapid tunable speed (<20mS)
- High wavelength(frequency) lock precision(±0.02nm)
- High wavelength(frequency) stability (±0.012nm)
- Excellent side mode suppression, high extinction ratio
- Low noise, narrow linewidth (Typ.=0.3MHz)
- Excellent system CNR,CTB,CSO index
- SBS threshold 13 ~ 19dBm continuously adjustable
- The safety reliability & network management of the telecommunication level
- High level wavelength flexibility and replaceability
- 10/100M Ethernet interface, support SNMP, and WEB remote control and management
- 1+1 power backup, support hot plug-ing.
- Excellent cost performance

Main application

- Next Generation Broadcasting（NGB）
- FTTH、FTTx PON 、RFoG、 Triple-play
- Narrow plug data service as VOD, IP/QAM, etc
- Replacing traditional fixed wavelength 1550nm external modulation optical transmitter
- Providing highly wavelength flexible and replace ability.
- As an alternate machine of ITU fixed-wavelength optical transmitter, to reduce the amount of inventory reserves
- Fully use of existing fiber resources, achieving network upgrades and expansion
- The CATV network with super capacity backbone and metropolitan area networks
- Dynamic wavelength configuration, wavelength conversion, wavelength routing
- Optical path protection, DWDM line back up
- Dynamic optical add-drop multiplexing (OAOM)
- DOptical pM system test

Technical index

Performance			Index			Supplement
			Max.	Typ.	Min.	
Optic feature	Tuning Range	(nm)	35			C-Band
	Wavelength tuning Range	(nm)	1528.77		1563.86	
	Frequency tuning Range	(THz)	191.7		196.1	
	Number of ITU grid locking		89			50GHz spacing
	Channels Spacing	(nm)		0.4		50GHz spacing
	Locked wavelength Accuracy	(nm)	-0.02		+0.02	±2.5 GHz
	Wavelength stability	(nm)	-0.012		+0.012	±1.5 GHz
	Tuning Speed	(mS)			20	
	Number of Output port			2		
	Output Optical Power	(dBm)	4.5			HT8825
			5.5			HT8826
			6.5			HT8827
			7.5			HT8828
			8.5			HT8829
	Power ripple	(dB)	-0.25	±0.15	+0.25	Over tuning range
	Line width	(MHz)		0.35	1	FWHM (△λ) , (-3dB full
	Side Mode Suppression ratio	(dB)	45	50		SMSR
	Relative Intensity Noise (RIN)	(dB)			-160	RIN (20~1000MHz)
	Return loss	(dB)	50			
	Optical connector		SC/APC			Optional FC/APC、LC/APC
RF Feature	Work bandwidth	(MHz)	47		862	
	Input level	(dBmV)	18		28	AGC
	Flatness	(dB)	-0.75		+0.75	
	Return loss	(dB)	16			
	Input impedance	(Ω)		75		
	RF connector		F-Female			

Link Feature	Transmit channel		PAL-D/60CH		PAL-D/99CH	
	CNR1	(dB)	≥54.0		≥52.5	Back to back
	CNR2	(dB)	≥52.5		≥50.5	65Km optical fiber, 0dBm
	CTB	(dB)	≤-65		≤-65	
	CSO	(dB)	≤-65		≤-65	
	SBS restrain	(dBm)	13		19	Adjustable
General Information	10/100M Ethernet interface		RJ45			
	Net working protocol		SNMP			
	Communication interface		RS232			
	Power supply	(VAC)	90		265	50/60Hz
		(VDC)	-72	-48	-36	
	Power Consume	(W)			50	Single power works
	Operating temp.	(°C)	-5		65	Machine temp. control
	Storage temp.	(°C)	-40		85	
	Relative humidity	(%)	5		95	
	Size (W)x(D)x(H)	(")	19×15.2×1.75			

Test condition:

CNR1: Tx to Rx, 0dB receiving.

CNR2: 16dBm EDFA (NF4.5~5.5dB), 65km fiber, 0dBmreceiving.

Product series

Model	Number of output port	Output power of each port	Work wavelength	SBS Restrain	SNMP	System index (59 routes PAL-D)			
						CNR1	CNR2	CTB	CSO
HT8825	2	≥4.5	1528.77~1563.86 Full C-Band Tunable	13~19 dBm Adjustable	With	≥54	≥52.5	≤-65	≤-65
HT8826	2	≥5.5				≥54	≥52.5	≤-65	≤-65
HT8800	2	≥6.5				≥54	≥52.5	≤-65	≤-65
HT8828	2	≥7.5				≥54	≥52.5	≤-65	≤-65
HT8829	2	≥8.5				≥54	≥52.5	≤-65	≤-65

Model explanation

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NGB (Next Generation Broadcasting) Full C-band tunable Externally Modulated Optical Transmitter	Number of output port		Output power		Optical port position		Connector		Number of power supply		Power supply	
	2	2 fiber output	5	≥4.5dBm	F	Front panel	FA	FC/APC	P	Dual PS, hot plug	22	220VAC
			6	≥5.5dBm	B	Back panel	SA	SC/APC			11	110VAC
			7	≥6.5dBm			LA	LC/APC			48	–48VDC
			8	≥7.5dBm							42	-48VDC& 220VAC
			9	≥8.5dBm								