

NGB5800 High power Fiber Amplifier



Description

Idealphotonics' NGB5800 is a double cladding Erbium-Ytterbium-Doped Fiber Amplifier (EYDFA) with high reliability, full functions, and total output power can reach 40dBm (10W), 128 way optic output, 1+1 power supply back-up, support hot plug. It supports high reliability, full-function application for the next generation Broadcast with extra-low noise figure, multifunction design, carrier-grade safe reliability and network management.

NGB5800H, high reliability, 2RU rack, built-in two sets high power fiber optical amplifier, 1+1 power supply back-up, one of them appears breakdown, will auto switch to another back-up amplifier work. It can delay the equipments' renewal and maintenance time, to ensure the network's safe reliability.

NGB5800A (1RU), NGB5800B (2RU), without amplifier backup. Reduce the network structure cost.

NGB5800 series, each output port can built-in WDM, applies to single fiber much wave network application of FTTx PON, CMTS and RFoG. It provides a flexible low cost solution for triple play, fiber to the home with efficient space, easy-install and reliable.

NGB5800 □ -W30, built-in 1550, 1310/1490 WDM, applies to FTTx PON

(EPON, GPON).

NGB5800 □-W23, W29, W26, built-in single fiber dual-wave WDM, applies to CMTS.

NGB5800 □-W46, W49, built-in single fiber four-wave WDM, applies to the application of RfOG single fiber four-wave.

NGB5800 series, NxN power output splitter optional, N PCS external inter-cut fiber port, can provide nonuniform VOD inter-cut business for N sets IP/QAM optical transmitter, to satisfy VOD business's high take rate and bunch planting rate.

Idealphotonics is the famous manufacture of EYDFA. Its EYDFA's safe reliability have got the endorsement of majority of uses. Our products have batches exported to Europe, North America, south America, Russia etc. Idealphotonics's EYDFA with high reliability, perfect cost performance, is the best choice of system integrator and operators.

Feathure

NGB5800H, high reliability, 2RU rack, built-in two sets high power fiber optical amplifier, 1+1 redundancy back up, automatically switch

Low noise figure(Typ $\leq 4.5\text{dB}$, Max $\leq 5.0\text{dB}$)

Total output power $\geq 40\text{dBm}$ (1000mW)

2RU carrier output port for optical ≥ 128

May build-in 1550 & 1310/1490WDM, use in EPON, GPON single fiber three wavelength application

8~64 uplink optical port, used in OLT

8~64 ,1550nm output optical port, multiplex 1310/1490nm data stream

May build-in 1550/1310 or 1550/1660(1590) WDM, used in CMTS single fiber bidirectional network

May build-in 1550、1610(1590) & 1310/1490 WDM, used in RfoG single fiber four wavelengths application

Optional N X N output power of fiber optic splitter ,N external spots of optical sopts, to satisfy VOD business's high take rate and bunch planting rate
 Electrical grade safe reliability and network management
 SNMP support remote management and control
 1+1 power supply back up,up hot-plug function available
 Efficient space, flexible installation
 Excellent p/p ratio

Application

CATV large area coverage of metropolises(Triple-play)
 FTTx PON (EPON, GPON)
 VOD sopts
 CMTS
 RFoG

Specification

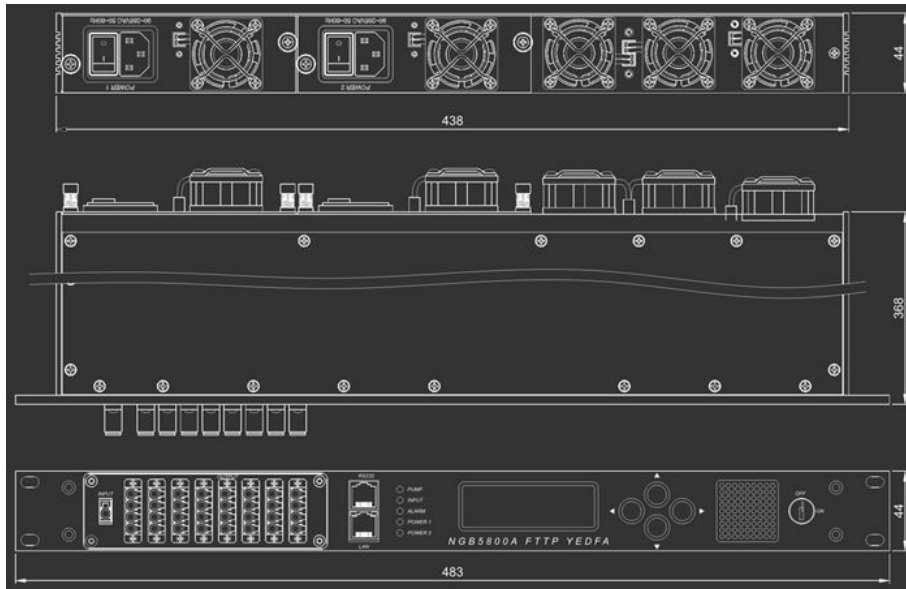
Performance			Index			Supplement
			Min.	Typ.	Max.	
Optical feature	CATV Operating wavelength (λ)	(nm)	1540		1563	CATV
	OLT pass wavelength	(nm)		1310/1490		-W30
	CATV wavelength pass loss	(dB)		0.4	0.8	-W30 (1550nm)
	OLT wavelength pass loss	(dB)		0.3	0.7	-W30 (1310/1490nm)
	CATV&OLT optical isolation	(dB)	40			-W30 (1550/1490nm)
	Number of uplink optical isolation (for OLT)	(pcs)		8	16	-W30 (1U)
				16	64	-W30 (2U)
	Number of overlay port	(pcs)	0	2	8	N × N power splitter
	CATV input power (Pi)	(dBm)	-10		+7.5	
	Total output power	(dBm)		27	33	1U
				28	40	2U
	Difference of each output power	(dB)	-0.5		+0.5	
Output power adjustbale range	(dBm)	-6		0		

	Number of output port	(pcs)		8	16	-W30 (1U)
				8	64	-W30 (2U)
				8	32	-W00 (1U)
				16	128	-W00 (2U)
	Each port output power	(dBm)	10		22	
	Time of stoppage	(ms)			50	NGB5800H
	Niose figure (Pin=0dBm)	(dB)		4.5	5.0	
	Polarization dependence loss	(dB)			0.3	
	Polarization dependence gain	(dB)			0.4	
	Polarization mode dispersion	(ps/nm)			0.3	
	Input/Output optical isolation	(dB)	30			
	Pump power leakage	(dBm)			-30	
Echo loss	(dB)	55			APC	
Generla feature	Communication interface		RS232			
	SNMP network management		RJ45			
	Power supplu	(V)	90		265	220VAC
			30		72	-48VDC
	Power consume	(W)			150	
	Work temp.	(°C)	-5		65	
	Storage temp.	(°C)	-40		80	
	Relative humidity	(%)	5		95	
	Size (W) × (D) × (H)		19 × 14.5 × 1.75 (")			1RU (19")
			483 × 368 × 44 (mm)			
Size (W) × (D) × (H)		19 × 12 × 1.75 (")			1RU (19")	
		483 × 300 × 44 (mm)				

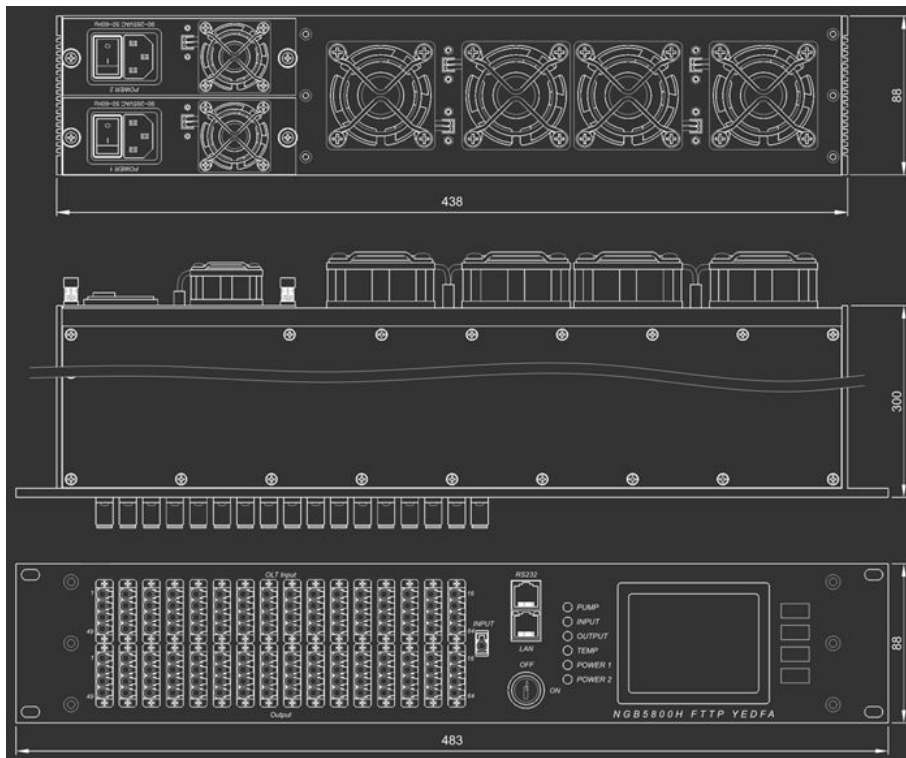
19 × 12 × 3.5 (")
483 × 300 × 89 (mm)

2RU (19")

NGB5800A 1RU



NGB5800B 2RU



Product series

NGB5800 □-□□-W00 series (without CWDM)

Model	Total output power (dBm)	Number of output port	Each port output (dBm)
NGB5828□-□×006-W00	28(630mW)	6	19.0
NGB5828□-□×008-W00		8	17.5
NGB5828□-□×012-W00		12	15.5
NGB5828□-□×016-W00		16	14.0
NGB5829□-□×006-W00	29(800mW)	6	20.0
NGB5829□-□×008-W00		8	18.5
NGB5829□-□×012-W00		12	16.5
NGB5829□-□×016-W00		16	15.0
NGB5830□-□×006-W00	30(1000mW)	6	21.0
NGB5830□-□×008-W00		8	19.5
NGB5830□-□×012-W00		12	17.5
NGB5830□-□×016-W00		16	16.0
NGB5831□-□×006-W00	31(1260mW)	6	22.0
NGB5831□-□×008-W00		8	20.5
NGB5831□-□×012-W00		12	18.5
NGB5831□-□×016-W00		16	17.0
NGB5831□-□×024-W00		24	15.0
NGB5832□-□×008-W00	32(1600mW)	8	21.5
NGB5832□-□×012-W00		12	19.5
NGB5832□-□×016-W00		16	18.0
NGB5832□-□×024-W00		24	16.0
NGB5833□-□×012-W00	33(2000mW)	12	20.5

NGB5833□-□×016-W00		16	19.0
NGB5833□-□×024-W00		24	17.0
NGB5833□-□×032-W00		32	15.5
NGB5834□-□×012-W00	34(2500mW)	12	21.5
NGB5834□-□×016-W00		16	20.0
NGB5834□-□×024-W00		24	18.0
NGB5834□-□×032-W00		32	16.5
NGB5834□-□×048-W00		48	14.5
NGB5835□-□×016-W00	35(3200mW)	16	21.0
NGB5835□-□×024-W00		24	19.0
NGB5835□-□×032-W00		32	17.5
NGB5835□-□×048-W00		48	15.5
NGB5835□-□×064-W00		64	14.0
NGB5836□-□×016-W00	36(4000mW)	16	22.0
NGB5836□-□×024-W00		24	20.0
NGB5836□-□×032-W00		32	18.5
NGB5836□-□×048-W00		48	16.5
NGB5836□-□×064-W00		64	15.0
NGB5837□-□×016-W00	37(5000mW)	16	23.0
NGB5837□-□×024-W00		24	21.0
NGB5837□-□×032-W00		32	19.5
NGB5837□-□×048-W00		48	17.5
NGB5837□-□×064-W00		64	16.0
NGB5838□-□×024-W00	38(6300mW)	24	22.0
NGB5838□-□×032-W00		32	20.5

NGB5838□-□×048-W00		48	18.5
NGB5838□-□×064-W00		64	17.0
NGB5838□-□×096-W00		96	14.5
NGB5839□-□×032-W00	39(8000mW)	32	21.5
NGB5839□-□×048-W00		48	19.5
NGB5839□-□×064-W00		64	18.0
NGB5839□-□×096-W00		96	15.5
NGB5839□-□×128-W00		128	14.5
NGB5840□-□×048-W00	40(10000mW)	48	20.5
NGB5840□-□×064-W00		64	19.0
NGB5840□-□×096-W00		96	16.5
NGB5840□-□×128-W00		128	15.5

Note: 1. Optical models: NGB5800A, NGB5800B, NGB5800H

2. External VOD overlay of the optical port: 0, 1, 2, 4, 8

NGB5800 □-□□-W30 Series & Link budget (build-in CWDM)

Model	Total output power	Number of output	Each port output power(dBm)	Union OLT	ONU RX Receive power (dBm)	
					1×32, 20km	1×64, 10km
NGB5828□-□×006-W30	28dBm (630mW)	6	18.5	6	-5.0	-6.0
NGB5828□-□×008-W30		8	17.0	8	-6.5	-7.5
NGB5828□-□×012-W30		12	16.0	12	-7.5	-8.5
NGB5829□-□×006-W30	29dBm (800mW)	6	19.5	6	-4.0	-5.0
NGB5829□-□×008-W30		8	18.0	8	-5.5	-6.5
NGB5829□-□×012-W30		12	17.0	12	-6.5	-7.5
NGB5830□-□×006-W30	30dBm	6	20.5	6	-3.0	-4.0

NGB5830□-□×008-W30	(1000mW)	8	19.0	8	-4.5	-5.5
NGB5830□-□×012-W30		12	17.0	12	-6.5	-7.5
NGB5831□-□×008-W30	31dBm (1260mW)	68	20.0	8	-3.5	-4.5
NGB5831□-□×012-W30		12	18.0	12	-5.5	-6.5
NGB5831□-□×016-W30		16	16.5	16	-7.0	-8.0
NGB5832□-□×008-W30	32dBm (1600mW)	8	21.0	8	-2.5	-3.5
NGB5832□-□×012-W30		12	19.0	12	-4.5	-5.5
NGB5832□-□×016-W30		16	17.5	16	-6.0	-7.0
NGB5833□-□×012-W30	33dBm (2000mW)	12	20.0	12	-3.5	-4.5
NGB5833□-□×016-W30		16	18.5	16	-5.5	-6.0
NGB5833□-□×024-W30		24	16.5	24	-7.0	-8.0
NGB5834□-□×016-W30	34dBm (2500mW)	16	19.5	16	-4.0	-5.0
NGB5834□-□×024-W30		24	17.5	24	-6.0	-7.0
NGB5834□-□×032-W30		32	16.0	32	-7.5	-8.5
NGB5835□-□×016-W30	35dBm (3200mW)	16	20.5	16	-3.0	-4.0
NGB5835□-□×024-W30		24	18.5	24	-5.0	-6.0
NGB5835□-□×032-W30		32	17.0	32	-6.5	-7.5
NGB5836□-□×008-W30	36dBm (4000mW)	8	15.0	8	-8.5	-9.5
NGB5836□-□×016-W30		16	21.5	16	-2.0	-3.0
NGB5836□-□×024-W30		24	19.5	24	-4.0	-5.0
NGB5836□-□×032-W30		32	18.0	32	-5.5	-6.5
NGB5836□-□×048-W30		48	16.0	48	-7.5	-8.5
NGB5836□-□×064-W30		64	15.0	64	-8.5	-9.5
NGB5837□-□×016-W30	37dBm (5000mW)	16	22.5	16	-1.0	-2.0
NGB5837□-□×024-W30		24	20.5	24	-3.0	-4.0

NGB5837□-□×032-W30		32	19.0	32	-5.0	-6.0
NGB5837□-□×048-W30		48	17.0	48	-6.5	-7.5
NGB5837□-□×064-W30		64	15.5	64	-7.5	-8.5
NGB5838□-□×024-W30	38dBm (6300mW)	24	21.5	24	-2.0	-3.0
NGB5838□-□×032-W30		32	20.0	32	-4.0	-5.0
NGB5838□-□×048-W30		48	18.0	48	-5.5	-6.5
NGB5838□-□×064-W30		64	16.5	64	-7.0	-8.0
NGB5839□-□×024-W30	39dBm (8000mW)	24	22.5	24	-1.0	-2.0
NGB5839□-□×032-W30		32	21.0	32	-2.5	-3.5
NGB5839□-□×048-W30		48	19.0	48	-4.5	-5.5
NGB5839□-□×064-W30		64	17.5	64	-6.0	-7.0
NGB5840□-□×032-W30	40dBm (10000mW)	32	22.0	32	-1.5	-3.5
NGB5840□-□×048-W30		48	20.0	48	-3.5	-4.5
NGB5840□-□×064-W30		64	18.5	64	-5.0	-6.0

- Note: 1. EPON 1×32 split, 20Km, Optical link budget loss: -23.5dB
 2. 1×64 split, 10Km, Optical link budget loss: -24.5dB
 3. Use Huatai FTTH, FTTP , FTTB high performance optical receiver Analog TV Rx receive power of optical optional≥-8dBm, CNR≥45dB Digital TV RX receive power of optical optional≥-13dBm, MER>33dB (deterioration 5dB)
 4. Optical model: NGB5800H, NGB5800A, NGB5800B
 5. External VOD overlay of the optical port: 0, 2, 4 8

Ordering information

NGB 58 00 □ - □ X □□□ - W□□ - □□ - P / □□

NGB Product series	Product type		Total output power		Product series	Overlay port		Output port		CWDM		Connector		Power	Power supply	
	58	EYDFA	28	28dBm		0	Without	008	8port	W00	Without port	SA	SC/APC		Dual PS hot plug	22
			29	29dBm	H	2	2 port	008	8port	W30	With 1550, 1310/1490 WDM Apply to EPON, GPON		LA	LC/APC		11
			30	30dBm	A	4	4 port	012	12port	W23	With 1550/1310 WDM Apply to CMTS		LP	LC/UPC	48	-48VDC
			31	31dBm		8	8 port	016	16port		W28	With 1550/1590 WDM Apply to CMTS			42	-48VDC & 220VAC
			32	32dBm	B				024	24port	W29	With 1550/1610 WDM Apply to CMTS				
			33	33dBm						032	32port	W26	With 1550, 1610/1490 WDM Apply to RFoG			
			34	34dBm					048	48port	W46	With 1550, 1590/1310, 1490 WDM Apply to RFoG				
			35	35dBm					064	64port						
			36	36dBm					096	96port						
			37	37dBm					128	128port						
			38	38dBm												
			39	39dBm												
			40	40dBm												