



Evo™ XP-NexG Series

**6-42 GHz**

Software Defined Radio

**QPSK-1024 QAM**

**Supports Jumbo Frames up to 9.6K**

**Best-in-class  
For TDM and  
IPSolution**

## Evo™ XP-NexG Series

A multi-radio technology that offers flexible Gigabit capacity throughput and supports any Nera Evo™ radio technology mix from 6-42 GHz.

### OVERVIEW

Evo™ XP-NexG is Nera's next generation radio with enormous capabilities of an aggregation node. It is a highly modular and flexible cellular backhaul product that is optimized for nodal deployment, with a small footprint, high density, and a high degree of scalability and availability.

Evo™ XP-NexG can be used separately or combined to form integrated backhaul networks or network segments along with other Nera Radios.

### FEATURES

- Wireless multi-technology platform optimized
- Ultra-high capacity over frequency bands (6-42GHz)
- Highest carrier density in the market - up to 10 radio carriers in 2RU
- Multi-service support (hybrid) – fully interoperable with NERA installed-base units
- Unified software across entire series, powered by programmable network processors
- Intelligent networking functions – MEF Carrier Ethernet 2.0-compliant, MPLS-TP-ready
- Ability to meet the stringent latency requirements for LTE system

# Evo™ XP-NexG Series

**Evo™ XP-NexG** series is the ideal microwave solution in combining Evo IDUs and ODUs to build networks in which the most appropriate Evo product can be utilized for each node in the network to provide the feature support, capacity support, frequency range, density, and footprint that is optimized to meet the needs of that particular node.

**Evo™ XP-NexG** series comes in three designs: 10-port 2RU, 5-port in 1RU and 1RU access. On top of being interoperable with NERA's current installed-base radios, it also supports any radio transmission mix, making it ideal for seamless network modernization.



TECHNICAL SPECIFICATIONS – EVO™ XP-NexG Series		
	XP-NexG	XP-NexG Edge plus
Max capacity per ODU (uncompressed)	441Mb/s	
Nodal Solution	1RU chassis – up to 5 directions 2RU chassis – up to 10 directions	1RU chassis – up to 4 directions
1+0 Power Consumption	6-26 GHz: 81W 28-42 GHz: 85 W	6-26 GHz: 45W 28-42 GHz: 49W
2+0 Power Consumption	6-26 GHz: 120W 28-42 GHz: 128W	6-26 GHz: 70W 28-42 GHz: 78W
Modulation	QPSK-1024QAM Hitless 10-point ACM	QPSK-1024QAM Hitless 10-point ACM
Gigabit Interfaces	8	6
TDM Support	Nx16E1/DS1 or chSTM-1 plug-in cards (native / PWE)	16E1/DS1 assembly options (native / PWE)

MECHANICAL SPECIFICATION – Evo™ XP-NexG Series		
	Dimension	Weight
XP-NexG	1RU: 444.3 mm (W) x 245 mm (D) x 44.5 mm (H) 2RU: 444.3 mm (W) x 245 mm (D) x 88 mm (H)	3kg without modules 6kg without modules
XP-NexG Edge+	426 mm (W) 180 mm (D) 44 mm (H)	2.5kg
ODUs	200mm (W) x 85mm (D) x 200 mm (H)	4kg
Evo LH ODU	218 mm (D) x 125 mm (D) x 230 mm (H)	5.2kg

Frequency Band [GHz]		6-8	10-11	13-15	18-23	24 UL*	25	28,32,38	42
Modulation	QPSK	29	27	24	22	-17	21	18	16
	8 PSK	29	27	24	22	-18	21	18	16
	16 QAM	28	26	23	21	-19	20	17	15
	32 QAM	27	25	22	20	-19	19	16	14
	64 QAM	27	25	22	20	-19	19	16	14
	128 QAM	27	25	22	20	-19	19	16	14
	256 QAM	27	25	22	20	-19	19	16	14
	512 QAM	25	23	20	18	-17	17	14	12
	1024 QAM	25	23	20	18	-17	17	14	12

Receiver Thresholds (RSL) (dBm @ BER = 10e-6)							
Modulation	Channel Spacing	6-11 GHz	13-15 GHz	18 GHz	23-28 GHz	32, 38 GHz	42 GHz
QPSK	28 MHz	-88	-87.5	-87	-87.5	-86	-85.5
8 PSK		-83	-82.5	-81.5	-82	-81	-80.5
16 QAM		-81.5	-80	-80	-80.5	-79.5	-79
32 QAM		-78	-77	-76.5	-77	-76	-75.5
64 QAM		-75	-73	-73.5	-74	-73	-72.5
128 QAM		-72	-70	-70.5	-71	-70	-69.5
256 QAM		-69	-67	-67	-68	-67	-66.5
512 QAM		-67	-65	-65.5	-66	-65	-64.5
1024 QAM (strong FEC)		-63.5	-63	-62	-63	-61.5	-61
1024 QAM (light FEC)		-62.5	-62	-61	-63	-60.5	-60
QPSK	40 MHz	-87	-86	-85.5	-86	-85	-84.5
8 PSK		-82	-81	-80	-81	-80	-79.5
16 QAM		-80	-79	-78.5	-79.5	-78	-77.5
32 QAM		-77	-75.5	-75	-76	-75	-74.5
64 QAM		-74	-72.5	-72	-73	-71.5	-71
128 QAM		-70.5	-69.5	-69	-70	-68.5	-68
256 QAM		-67.5	-66.5	-66	-67	-65.5	-65
512 QAM		-65.5	-64.5	-64	-65	-63.5	-63
1024 QAM (strong FEC)		-62	-61	-60.5	-61.5	-60	-59.5
1024 QAM (light FEC)		-61	-60	-59.5	-60.5	-59	-58.5
QPSK	56 MHz	-85.5	-84.5	-84	-84.5	-83.5	-83
8 PSK		-80	-79	-78.5	-79.5	-78	-77.5
16 QAM		-78.5	-77.5	-77	-78	-76.5	-76
32 QAM		-75	-74	-73.5	-74	-73	-72.5
64 QAM		-72	-71	-70.5	-71.5	-70	-69.5
128 QAM		-69	-68	-67.5	-68	-67	-66.5
256 QAM		-66	-65	-64.5	-65	-64	-63.5
512 QAM		-64	-63	-62.5	-63	-62	-61.5
1024 QAM (strong FEC)		-61	-60	-59.5	-60	-59	-58.5
1024 QAM (light FEC)		-60	-59	-58.5	-59	-58	-57.5