



## CHP Max5000™ 1 GHz Extended Linearized Forward Transmitters (CHP-GFX-DXL) Technical Specification

### CHP-GFX-DXL Specifications

#### Optical

Optical Wavelength	1310nm ± 10nm
Optical Output Power	2, 4, 6, 8, 10, 12, 13, 14, 15 dBm

#### RF

Bandwidth Frequency Range, MHz	45 to 1002
Response Flatness, typ., dB	±0.5
Input Return Loss, minimum, dB	16
Port-to-Port Isolation	
45 to 870MHz, dB	>60
870 to 1002MHz, dB	>50
ADC Range, dB	±3.0

#### Powering

Power Consumption (maximum), W	17.4
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#### Performance

Channel Plan	128 NTSC Channels
Input RF Power, Analog Channels, dBmV/ch	13
Composite Second Order, dBc	-63
Composite Triple Beat, dBc	-68

#### Mechanical

Optical Connector	SC/APC
RF Connector	F-Type
RF Input Testpoint, dB	-20 ± 1.0
Dimensions (W x H x D), in (cm)	1.25 x 3.4 x 18.5 (3.2 x 8.7 x 47.0)
Weight, lbs (kg)	2.75 (1.24)

#### Environmental

Operational Temperature (storage), °F/°C	32 to 122/0 to 50 (-40 to 158/-40 to 70)
Humidity, noncondensing (storage), max.	85%
Storage Humidity, noncondensing, max.	95%

**NTSC CNR Performance**

	CHP-GFX-DXL-								
	02	04	06	08	10	12	13	14	15
<b>Output Power (dBm)</b>	2.0	4.0	6.0	8.0	10.0	12.0	13.0	14.0	15.0
<b>Fiber Length (km)</b>	2.8	8.3	13.8	15.0	15.0	20.0	20.0	20.0	20.0
<b>Optical Loss Budget (dB)</b>	<b>CNR (dB) for part fiber/part passive link (typical)</b>								
2	51.5	—	—	—	—	—	—	—	—
3	50.8	51.8	—	—	—	—	—	—	—
4	50.0	51.1	—	—	—	—	—	—	—
5	—	50.4	51.0	—	—	—	—	—	—
6	—	49.5	50.5	—	—	—	—	—	—
7	—	—	49.8	51.1	—	—	—	—	—
8	—	—	49.0	50.4	—	—	—	—	—
9	—	—	—	49.8	51.1	—	—	—	—
10	—	—	—	49.2	50.4	—	—	—	—
11	—	—	—	—	49.8	51.1	—	—	—
12	—	—	—	—	49.2	50.4	51.1	—	—
13	—	—	—	—	—	49.8	50.4	51.1	—
14	—	—	—	—	—	49.2	49.8	50.4	51.1
15	—	—	—	—	—	—	49.2	49.8	50.4
16	—	—	—	—	—	—	—	49.2	49.8
17	—	—	—	—	—	—	—	—	49.2

**CENELEC CNR Performance**

	CHP-GFX-DXL-								
	02	04	06	08	10	12	13	14	15
<b>Output Power (dBm)</b>	2.0	4.0	6.0	8.0	10.0	12.0	13.0	14.0	15.0
<b>Fiber Length (km)</b>	2.8	8.3	13.8	15.0	15.0	20.0	20.0	20.0	20.0
<b>Optical Loss Budget (dB)</b>	<b>CNR (dB) for part fiber/part passive link (typical)</b>								
2	55.1	—	—	—	—	—	—	—	—
3	54.4	55.4	—	—	—	—	—	—	—
4	53.6	54.7	—	—	—	—	—	—	—
5	—	54.0	54.6	—	—	—	—	—	—
6	—	53.1	54.1	—	—	—	—	—	—
7	—	—	53.4	54.7	—	—	—	—	—
8	—	—	52.6	54.0	—	—	—	—	—
9	—	—	—	53.4	54.7	—	—	—	—
10	—	—	—	52.8	54.0	—	—	—	—
11	—	—	—	—	53.4	54.7	—	—	—
12	—	—	—	—	52.8	54.0	54.7	—	—
13	—	—	—	—	—	53.4	54.0	54.7	—
14	—	—	—	—	—	52.8	53.4	54.0	54.7
15	—	—	—	—	—	—	52.8	53.4	54.0
16	—	—	—	—	—	—	—	52.8	53.4
17	—	—	—	—	—	—	—	—	52.8

## Ordering Information

				<b>1</b>	<b>2</b>	<b>3</b>		<b>4</b>	<b>5</b>	<b>6</b>		<b>7</b>	<b>8</b>		<b>9</b>
<b>C</b>	<b>H</b>	<b>P</b>	<b>-</b>	<b>G</b>	<b>F</b>	<b>X</b>	<b>-</b>	<b>D</b>	<b>X</b>	<b>L</b>	<b>-</b>	<b>x</b>	<b>x</b>	<b>-</b>	<b>S</b>

<b>1-3 Forward Transmitter Type</b>
GFX 1310nm fixed output transmitter series

<b>4 Transmitter Inputs</b>
D Dual Input

<b>5-6 Transmitter Linearization</b>
XL 870MHz Linearization

<b>7-8 Optical Output Level</b>
02 Fixed optical output power of 2 dBm
04 Fixed optical output power of 4 dBm
06 Fixed optical output power of 6 dBm
08 Fixed optical output power of 8 dBm
10 Fixed optical output power of 10 dBm
12 Fixed optical output power of 12 dBm
13 Fixed optical output power of 13 dBm
14 Fixed optical output power of 14 dBm
15 Fixed optical output power of 15 dBm

<b>9 Connector Type</b>
S SC/APC