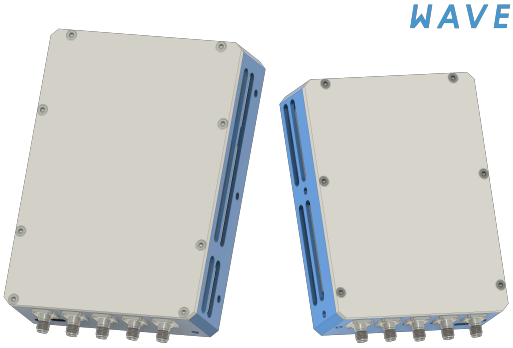
G-2602 / G-2802 / G-3902

5G Dual-Pol/Dual-Beam Phased Arrays with integrated UDC and LO

G-2602 / G-2802 / G-3902 are 5G phased arrays with dual-polarization and 2 beams in both Tx and Rx operation. The unit includes built-in up/down converters (UDC) with different IF frequency options. An integrated LO is also available as an option. In Tx mode, the 64-element phased array radiates 60 dBm EIRP_1dB per Pol and 51-52 dBm linear power that achieves 3% EVM for a 64QAM modulated signal. The unit has gain and phase control on every element and can scan to 55-60 degrees in all planes and polarizations with > 23 dB cross-pol rejection. The unit has a 12 V power supply and can be controlled by either USB or an external 26-pin high-speed connector. The unit offers an RF coupled port and can be operated in RF or IF modes.



- **Unit available with 32 elements (8x4), 64 elements (8x8) and 256 elements (4x8x8)**
- **All units are with integrated UDC, with low IF (2-6 GHz) and high IF (3.5 – 8 GHz) options**
- **Unit available with integrated LO and reference**

Features:

All Planar; Wide scan angle; Low cost; Polarization Agile: 2x2, 4x4, and 8x8 MIMO

Applications:

5G Systems; Point-to-point systems; Relays Ka-band Radars

Phased-Array Key Specifications:

Dual-Pol/Dual-Beam Arrays	64 Elements (8x8)	32 Elements (8x4)
RF Frequency (G-2602/G-2802/G-3902)	23-28 GHz / 26-30.5 GHz / 37-41 GHz	
LO Frequency (x2 mode/x4 mode)*	10-12 GHz / 5-6 GHz	
IF Frequency options*	2-6 GHz / 3.5-8 GHz	
EIRP_1dB (per polarization) EIRP Linear* at 3% 64QAM	60 dBm 51-52 dBm	54 dBm 45-46 dBm
EIRP Max Gain (EIRP/Pin) (IF mode/RF mode)	70 dB / 45 dB	65 dB / 40 dB
RX Electronic Max Gain (Pout/Parray) (IF mode/RF mode)	30 dB / 12 dB	30 dB / 12 dB
Gain and Phase Control	> 50 dB / 6 bits	> 50 dB / 6 bits
DC Power consumption: - Tx dual pol ON at P1dB - Tx dual pol ON at small signal - Rx dual pol ON	 12V/5A 12V/3.5A 12V/3A	 12V/3A 12V/2.2A 12V/2A
Weight	1.5 lb / 700 g	1.3 lb / 600 g
Size (WxLxH)	11 x 15.5 x 4.2 cm	10.5 x 14 x 4.2 cm

*** not applicable in RF mode**

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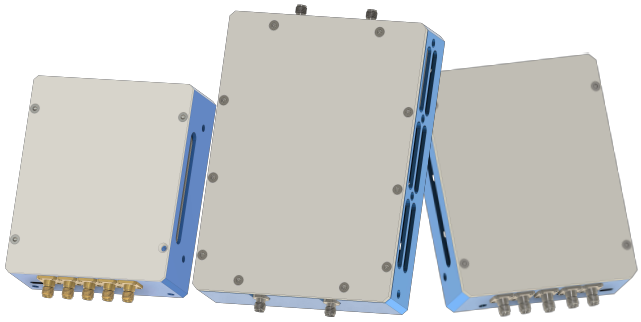
G-2601 / G-2801 / G-3901

5G Single Polarization Phased Arrays with integrated UDC and LO

G-2601 / G-2801 / G-3901 are single polarization 5G phased arrays with integrated up/down converters (UDC). Different antenna size configurations and beam numbers are available, e.g., 8x8, 16x16, 4x(8x8), with built-in LO as an option. In Tx mode, the 256 element phased array radiates 64-65 dBm EIRP_1dB and 57-58 dBm linear power that achieves 3% EVM for a 64QAM modulated signals. The unit has amplitude and phase control on every element and can scan up to 55 degrees in all planes with > 25 dB cross-pol. rejection. The unit has a 12V power supply and can be controlled by either USB or an external high-speed connector. Some units offer an RF coupled port and can be operated in RF or IF modes.



- **Unit available with 64 elements (8x8) and 256 elements (16x16: 1 beam and 4x8x8: 4 beams)**
- **All units are with integrated UDC, with low IF (2-6 GHz) and high IF (3.5 – 8 GHz) options**
- **Unit available with integrated LO and reference**

Features:

All Planar; Wide scan angle; Low cost; Multiple beam centers; Ease of operation

Applications:

5G Systems; Point-to-point systems; Relays Ka-band Radars

Phased Array Key Specifications:

Single-Pol, Single-Beam Arrays	256 Elements (16x16)	64 Elements (8x8)*
RF Frequency (G-2601/G-2801/G-3901)	23-28 GHz / 26-30.5 GHz / 37-41 GHz	
LO Frequency (x2 mode/x4 mode)**	10-12 GHz / 5-6 GHz	
IF Frequency options**	2-6 GHz / 3.5-8 GHz	
EIRP_1dB EIRP Linear at 3% 64QAM	64-65 dBm 58 dBm	52-53 dBm 46 dBm
EIRP Max Gain (EIRP/Pin) (IF mode/RF mode)	80 dB / 60 dB	70 dB / 50 dB
RX Electronic Max Gain (Pout/Parray) (IF mode/RF mode)	28 dB / 10 dB	32 dB / 14 dB
Gain and Phase Control	> 50 dB / 6 bits	> 50 dB / 6 bits
DC Power consumption: - Tx at P1dB - Tx at small signal - Rx mode	 12V/6A 12V/4A 12V/4A	 12V/1.8A 12V/1.2A 12V/1.2A
Weight	1.5 lb / 700 g	1.2 lb / 550 g
Size (WxLxH)	12 x 16 x 4.2 cm	11 x 14 x 4.2 cm

*** 4x8x8 array also available with 4 independent 8x8 arrays and UDC units**
**** not needed in RF mode**

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