



## CA6000 SERIES BROADBAND TRANSMIT ANTENNA COMBINER

### GENERAL

#### Frequency Range

- 1.5 MHz to 30 MHz

#### Input Power

- 1 kW nominal per transmitter input, maximum 1.2 kW

#### Insertion Loss

- Combiner:  $\leq 1$  dB
- Flexible Power Management Unit: 0 dB  $\pm 2$  dB

#### Input/Output Impedance

- Combiner Array: 50 ohm, unbalanced, VSWR  $< 1.2:1$ , with 50 ohm source and terminations.
- FPMU: 50 ohm, unbalanced, VSWR  $< 1.2:1$ , with 50 ohm source and terminations.

#### Port-Port Isolation

- Combiner Array:  $> 25$  dB min, typically 30 dB with 50 ohm source and termination
- FPMU:  $\geq 40$  dB min, typically 50 dB with 50 ohm source and termination

#### Power Supply

- 115/230 V, 50-60 Hz,  $\pm 10\%$

#### Power Requirement

- Heaters 110 W nominal (per cabinet)

4-way	5-way	8-way
<420 VA	<TBD	<770 VA

### ENVIRONMENTAL/PHYSICAL

#### Temperature

- Operation:  $-5^{\circ}\text{C}$  to  $+55^{\circ}\text{C}$
- Storage:  $-30^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$  MIL-STD-810 E and NES1004

#### Vibration

- MIL-STD-810E, Method 514.4, cat 9 random

#### Shock

- MIL-S-901D; 30g, 25 ms (per NES1004) (with cabinet shock mounts)

#### Size (W x H x D)

- Height (34 U cabinet): 64.125 in (1630 mm)
- Width: 23.625 in (600 mm)
- Depth: 31.50 in (800 mm)

#### Weight

	CABINET(S)	FPMU	DIPLEXER
2-4 way (single)	220 kg	5 kg	6 kg
5 way (single)	250 kg	5 kg	6 kg
6-8 way (dual)	500 kg	10 kg	6 kg

### ADDITIONAL

- Interoperable with Thales Series 6000 and Series 8000 HF systems
- Electrical Installation Kit: Contains electrical connectors.
- Mechanical Installation Kit: Contains shock mountings and hardware to interconnect cabinets.

#### CA6400 4-WAY COMBINER Part Number 604442-14

#### CA6500 5-WAY COMBINER Part Number 604441-14

#### CA6800 8-WAY COMBINER Part Number 602803-10

- Scalable 2 to 8 PAs into 1 broadband antenna
- Passive hybrid combiners provide a very linear combination of transmit lines minimizing receive channel blockage
- Simple architecture provides ease of maintenance and low repair time
- Optional FPMU allows coherent combination of transmit channels for higher single channel power
- Interfaces to two part antennas via optional diplexers with standard crossovers of 6, 8, or 9 MHz
- Can operate into broadband antenna VSWRs of 4.5:1 with each PA at full 1 kW power
- Power monitor senses forward/reverse power into antenna and cuts PA power by 3 dB under high reverse power conditions
- Integral high power test load allows system test without external load

CA6800 Series 8-way Combiner with Optional FPMU & Diplexer



CA6400 Series 4-way Transmit Combiner