

41-ALEA23A917-C1 | BEAMFORMING ANTENNA SOLUTION

Frequency: 1710-1880MHz /1920-2170MHz | Antenna Gain: 9dBi | Gain: 50dB | Max. UL Output Power: 17dBm

Type: SISO | Connector: N Female | Usage: Indoor & Outdoor



OVERVIEW

BRIDGE BEAMFORMING ANTENNA is used as a smart donor antenna, which is able to provide 360-degree instant detection of signals in the air and identify and lock onto the optimal signal to serve as the donor signal. It is deployed in scenarios such as multi-operator, multi-carrier wireless repeater systems. It solves the problem that passive antennas cannot automatically determine signal direction and improves repeater performance in mobile scenarios.

The BRIDGE BEAMFORMING ANTENNA integrates an advanced algorithm capable of processing weak signal-level comparison, filtering unused signals, and continuously locking onto the correct signals, even when those signals fluctuate. The product maintains continuous updating and locking functionality at all times.

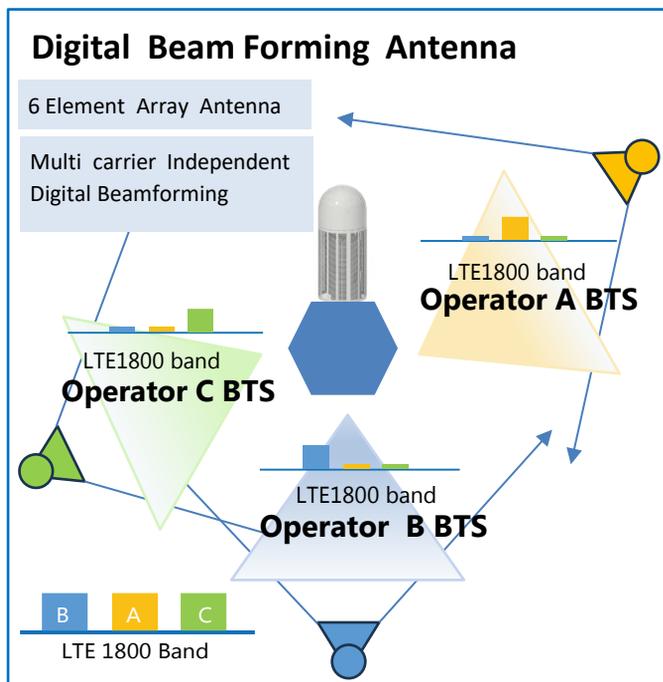
The BRIDGE BEAMFORMING ANTENNA is an ideal solution for offshore vessels, helping overcome challenges related to unstable and unknown BTS signals and signal-direction changes caused by vessel movement. It greatly reduces the need for specialized technical skills on board.

The BRIDGE BEAMFORMING ANTENNA is also designed to address donor-signal changes caused by BTS site relocation, carrier refarming, frequency-planning updates, and similar network adjustments. It significantly reduces complaints and labor costs associated with wireless-repeater surveying, activation, and maintenance after base-station changes.

FEATURES

- Supports RF circular antenna arrays and carrier-based beamforming
- Stable high-performance kernel algorithm
- Automatic 4G/5G tracking and demodulation
- Auto gain control
- Automatic isolation detection
- Customizable working frequency
- IP65 outdoor-grade protection
- Ideal for repeater sites and vessels
- Reduces maintenance costs
- Minimizes drop calls and performance issues

SITE APPLICATIONS



Disclaimer:

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DATA SHEET

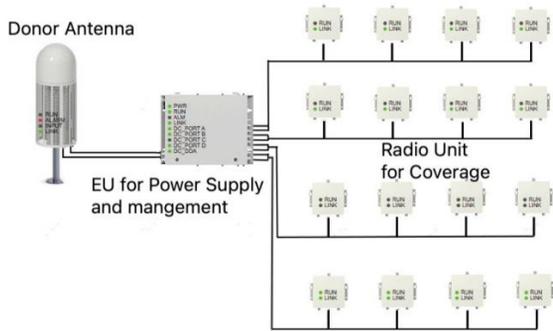
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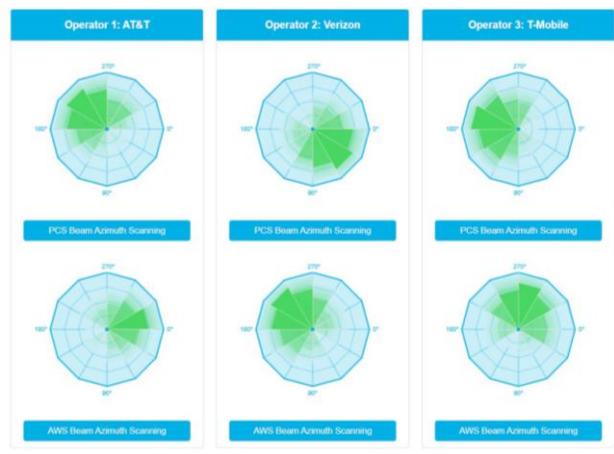
PRODUCT PICTURES



TECHNICAL DATA

Electrical Specifications		
Items	Uplink	Downlink
Frequency (B3)	1710-1785MHz	1805-1880MHz
Frequency (B1)	1920-1980MHz	2110-2170MHz
Carrier	3 Sub-bands Per Frequency	
Carrier Max Bandwidth	20MHz	
Output Power	17dBm	0dBm
Maximum Gain	50dB	
Number of Array Antenna	6	
Beamwidth-H	360°	
Beamwidth-V	70 ±10°	
Polarization	Vertical	
Logic Antenna (Beamforming) Electrical Specifications		
Phase adjustment accuracy	30° (12 wave positions)	
Antenna Gain	8-9dBi	
VSWR	≤1.8	
Front-to-back Ratio	≥18db	
Beamwidth-H	60 ±10°	
Beamwidth-V	70 ±10°	
Impedance	50Ω	
Mechanical & Environmental Specifications		
Connector	1x N Female	
Power Supply	AC 220V	
Power Supply Socket	3-Pin	
Temperature	-40°C ~ +55°C	
Humidity	≤85%	
Ingress Protection	IP65, Indoor & Outdoor	
Enclosure Cooling	Fan Cooling	
Installation Method	Pole Mounted	

RADIATION PATTERN / BEAMFORMING



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