BORAJ-V16

Single-Band L1 Anti-Jamming GNSS CRPA System

BORAJ-V16 is a rugged 16-element controlled reception pattern antenna system designed to protect positioning, navigation, and timing in contested RF environments. Adaptive null steering and advanced interference suppression deliver reliable GNSS performance for airborne, ground, or maritime platforms.



ARRAY ARCHITECTURE
16
ELEMENTS
16-element CRPA architecture

GNSS OPERATION
L1
ONLY
Single-band L1 operation

SUPPRESSION
80–90 dB
Interference suppression
1 to 15 sources

ENVIRONMENT
IP67
Rugged outdoor enclosure

PRODUCT OVERVIEW

BORAJ-V16 employs a 16-element controlled reception pattern antenna (CRPA) with adaptive null steering to mitigate intentional jamming, spoofing, and multipath.
The system preserves GNSS signal integrity and timing accuracy across dynamic mission scenarios while remaining compatible with common navigation interfaces and autopilot architectures.

PROTECTED NAVIGATION
Ensures reliable positioning, navigation, and timing in jammed and contested environments.

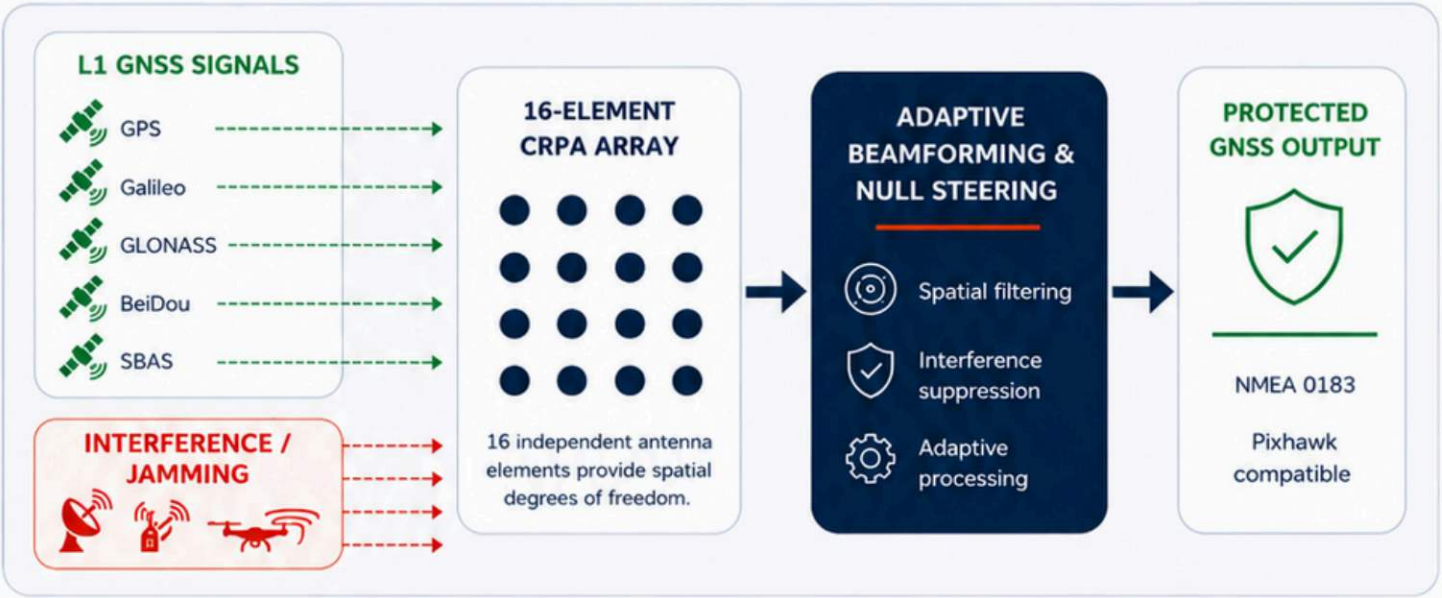
ADAPTIVE SUPPRESSION
Spatial filtering and adaptive null steering to suppress multiple interference sources across wide arrival angles.

PLATFORM INTEGRATION
Micro-D connectivity with NMEA 0183 output and Pixhawk compatibility for seamless system integration.

www.saglamtek.com
info@saglamtek.com
+90 505 237 33 81

SYSTEM ARCHITECTURE & KEY CAPABILITIES

BORAJ-V16 combines a 16-element CRPA array, adaptive interference mitigation, and protected GNSS output for host navigation systems.



KEY HIGHLIGHTS

16-ELEMENT CRPA
Expanded spatial degrees of freedom for stronger interference rejection.

FULL AZIMUTH COVERAGE
Adaptive response across full 360° azimuth coverage.

ANTI-SPOOFING SUPPORT
Processing architecture supports spoofing mitigation functions.

EXTENDED SUPPRESSION
High interference rejection performance for contested RF environments.

TECHNICAL SPECIFICATIONS

PARAMETER	VALUE / DESCRIPTION
Antenna Array	16 Elements
GNSS Bands	GPS L1, Galileo E1, BeiDou B1, GLONASS G1
Simultaneous Independent Nulls	15
Simultaneous Jamming Sources	15 (Independent Nulling)
Wideband Suppression	>90 dB J/S (with 15 wideband jammers)
Environmental Protection	IP54
Dimensions	<175 x 240 x 45 mm
Weight	<1.3 kg
Power Consumption	<30 W
Operating Voltage	12-28 VDC
Operating Temperature	-40°C to +70°C
Data Interface	Serial
RF Connector	SMA Female + Micro-D

Specifications are subject to verification and change without notice.

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