

METEKSAN
SAVUNMA

GNSS Product Family

2026

Meteksan Defence Industry Inc.



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1. GNSS Product Family

We, as Meteksan Defence, have developed original and advanced technology solutions in the fields we operate since our foundation with the responsibility of being under the roof of Bilkent University, one of the best universities of Turkey and meeting the expectations of our stakeholders in the defence industry at the highest level.

We do know that good projects do not create good companies, but only first-class business organizations produce excellent projects and products. Therefore, we build up the future of our company and the continuity of our reason of existence as defined in our mission, on the definition of “Good and Reliable Company”. Such a company means that the one running its activities within the outline drawn by its values. Moreover, its customers, business partners and even its competitors do not doubt the company’s loyalty to its values in any case.

With the experience we have gained, the infrastructure we have created and our competent engineering staff, we continue to develop and manufacture reliable, high-tech, original and cost-effective GNSS products for our customers. These GNSS products include;

- **Active GNSS Antennas**
- **SEDEN GNSS Receivers**
- **AGNOSIS Anti-Jamming GNSS**

We hereby commit that Meteksan Defence shall serve the most creative and innovative solutions to our customers, exactly within the scope they require and on time.



2. Active GNSS Antennas

High Dynamic High Precised Positioning Solutions

Meteksan Defence GNSS Antennas have been designed to support high accuracy air, land, marine and munition applications. Antennas are high-performance multi-band GNSS antennas that are built with weather-resistant materials to allow operation in the harshest environments. Maximize your GNSS receiver's positioning performance with the optimal GNSS antenna for your application. Meteksan Defence provides an extensive range of single-band and multi-band GNSS (GPS, GLONASS, Galileo, BeiDou) antennas in the L1 and L1/L2.



Technical Specifications	MS.GNSS-A-101	MS.GNSS-A-201
Frequency	L1	L1&L2
Polarization	RHCP	
Impedance	50 ohms	
Noise Figure	≤ 3 dB	
LNA Gain	32 ±2 dB	
Voltage	3.5-5.5 VDC	
Power Consumption	≤ 0.6W	≤ 1.2W
Weight	≤ 200gr	
Size	70mm x 23mm	
Environmental Requirements	MIL-STD-810G	

3. SEDEN GNSS Receivers



High Dynamic High Precised Positioning Solutions

Meteksan Defence GNSS Receivers offer highly accurate and precise positioning GNSS technology to platforms. Our GNSS receiver solutions offer multi-constellation, multi-frequency tracking and features flexibility, low power consumption, field upgradeable software and data logging. The products are rugged designs for harsh environments. Customers benefit from alternative options for fast data transfer, as well as receiver configuration via standard and custom interfaces. GNSS receivers are designed for easy integration into multi-platforms.



Technical Specifications / Product Type	MS.GNSS.R-330	MS.GNSS.R-470	MS.GNSS.R-2470
GNSS Signals	GPS L1 CA GLONASS L1 BEIDOU B1	GPS L1 CA GPS L2C, GLONASS L1 GLONASS L2 BEIDOU B1 GALILEO E1 SBAS GPS L5 (opt)	GPS L1 CA GPS L2C, GLONASS L1 GLONASS L2 BEIDOU B1 GALILEO E1 SBAS
Tracker Channels	32	72	72
ECCM Precautions	Frequency Filtering, Pulse Blanking, Wideband Interference Mitigation	Frequency Filtering, Pulse Blanking, Wideband Interference Mitigation	N/A
Anti-spoof	Yes	Yes	Yes
Heading	No	No	Yes
Position Accuracy	< 5 m RMS	< 5 m RMS	< 5 m RMS
Speed Accuracy	< 0.3 m/s RMS	< 0.3 m/s RMS	< 0.3 m/s RMS
Time Accuracy	< 30 ns	< 30 ns	< 30 ns
Cold Start Time	~45 sec	~45 sec	~45 sec
Hot Start Time	6 sec	6 sec	6 sec
Re-acquisition Time	3 sec	3 sec	3 sec
CN0 Threshold	23 dB CN0	23 dB CN0	23 dB CN0
Com. Interface	RS232/485/422	RS232/485/422	RS232/485/422
Data Format	Custom, NMEA	Custom, NMEA	Custom, NMEA
Data Update Rate	10 Hz	10 Hz	10 Hz
Input Voltage	28 V (12-32 V)	28 V (12-32 V)	28 V (12-32 V)
Power Consumption	< 10 W	< 12 W	< 12 W
Size			
Card Base	100 x 60 mm	100 x 60 mm	100 x 60 mm
w/Mechanical Enclosure	127.4x77.4x23.8 mm	127.4x77.4x23.8 mm	127.4x77.4x23.8 mm
Weight	< 150 gr <350 gr	< 150 gr <350 gr	< 150 gr <350 gr
Environmental Conditions	MIL-STD-810G	MIL-STD-810G	MIL-STD-810G

4. AGNOSIS Anti-Jamming GNSS Family



Protect Your Platforms From Jamming Threats

VITAL SOLUTION IN COMBAT MISSIONS

Today, most military platforms depend on Global Navigation Satellite Systems (GNSS). Jamming GNSS signals may cause many platforms to fail their mission. For this reason, the development of GNSS anti-jamming systems and sustaining the performance of the military platforms in jamming environments is a crucial need.

AGNOSIS Anti-Jamming GNSS includes CRPA antenna with 4, 8 and 16 antenna array configuration and 1 signal processing unit with multi receive channels. Signals acquired by CRPA are digitized with high dynamic range receivers and processed by a signal processing unit. Jamming signals are filtered by using signal processing techniques, and the original signal without the jamming signal is reconstructed again to deliver standard GNSS receivers.

HIGH PRECISION LOCATION AND VELOCITY INFORMATION

Meteksan Defence can develop and produce platform-specific GNSS receiver systems with anti-jamming and anti-spoofing capabilities, which can output precise position and velocity information. In order to suppress jamming signals, spatial filtering methods are utilized. Phased array antennas are used for spatial filtering for incoming signal direction, and jamming signals are separated from GNSS signals. Depending on the number of antennas used in spatial filtering, more than one jamming signal can be nullified. It is possible to determine the direction of the GNSS signals by using phased array antennas. By using this information, while powerful jamming signals are nullified by the anti-jamming system, GNSS spoofing signals can also be filtered.

HIGH TECHNOLOGY ANTENNA (CRPA) AND SIGNAL PROCESSING UNIT

Meteksan Defence has antenna and signal processing designs and products that can be integrated to work with different GNSS receivers especially for different platforms and tough missions. We design custom and reliable antenna solutions with our advanced design infrastructure for modeling and simulation and near/far antenna test & measurement environment. Conformal/Blade antennas are developed that is shaped in the aerodynamic structure of the missile/air system with optimized radiative beam depending on placement and operational needs.

WHY AGNOSIS?

- Maintains mission continuity in GNSS-denied environments
- Actively suppresses multiple simultaneous jamming sources
- Protects against spoofing and deceptive navigation
- Integrates seamlessly with existing GNSS receivers
- Platform-specific CRPA antenna designs
- Proven solution for high-threat combat operations

4.1. 4 Channel Anti-Jamming GNSS Products



Product	MS.GNSS.AJ-430-X
Receive Channels	4
Supported Frequency Bands	All simultaneous and independent 3 frequency bands • GPS L1&GALILEO E1&QZSS&BEIDOU B1C&SBAS • GLONASS L1 • BEIDOU B1I Independent beam nulling at each frequency band
Anti-jamming Techniques	• Beam Nulling • Pulse Blanking • Frequency Notch
GNSS Receiver	• External GNSS Receiver Support
Jamming Suppression	40 dB (Wideband) 70 dB (Narrowband)
JSR	110 dB
Interfaces	RS 232 – 485, Ethernet
Dimensions	135 x 90 x 16 mm (W x L x H)
Weight	300 gr ± 50
Power	28 V, < 12 W

Product	MS.GNSS.AJ-431-R
Receive Channels	4
Supported Frequency Bands	All simultaneous and independent 3 frequency bands • GPS L1&GALILEO E1&QZSS&BEIDOU B1C&SBAS • GLONASS L1 • BEIDOU B1I Independent beam nulling at each frequency band
Anti-jamming Techniques	• Beam Nulling • Pulse Blanking • Frequency Notch
GNSS Receiver	• Embedded Meteksan Multiband GNSS Receiver with advanced anti-spoofing capabilities • GPS L1CA, GLONASS L1, BEIDOU B1I, GALILEO E1
Jamming Suppression	40 dB (Wideband) 70 dB (Narrowband)
JSR	110 dB
Interfaces	RS 232 – 485, Ethernet
Dimensions	135 x 90 x 16 mm (W x L x H)
Weight	300 gr ± 50
Power	28 V, < 12 W

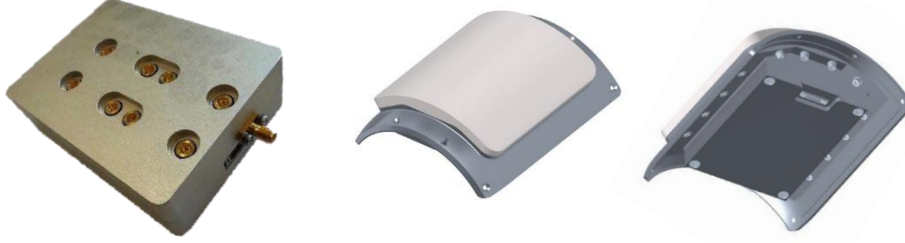
4.2. 4 Channel Mini Size Anti-Jamming GNSS Products



Product	MS.GNSS.AJ-430_m
Receive Channels	4
Supported Frequency Bands	All simultaneous and independent 3 frequency bands • GPS L1&GALILEO E1&QZSS&BEIDOU B1C&SBAS • GLONASS L1 • BEIDOU B1I Independent beam nulling at each frequency band
Anti-jamming Techniques	• Beam Nulling • Pulse Blanking • Frequency Notch
GNSS Receiver	• External GNSS Receiver Support • Embedded Meteksan Multiband GNSS Receiver with anti-spoofing capabilities
Jamming Suppression	40 dB (Wideband) 70 dB (Narrowband)
JSR	110 dB
Interfaces	RS 232 – 485, Ethernet
Dimensions	75 x 70,5 x 24,5 mm (W x L x H)
Weight	300 gr ± 50
Power	28 V, < 12 W

Product	MS.GNSS.AJ-431_m
Receive Channels	4
Supported Frequency Bands	All simultaneous and independent 3 frequency bands • GPS L1&GALILEO E1&QZSS&BEIDOU B1C&SBAS • GLONASS L1 • BEIDOU B1I Independent beam nulling at each frequency band
Anti-jamming Techniques	• Beam Nulling • Pulse Blanking • Frequency Notch
GNSS Receiver	• Embedded Meteksan Multiband GNSS Receiver with advanced anti- spoofing capabilities • GPS L1CA, GLONASS L1, BEIDOU B1I, GALILEO E1
Jamming Suppression	40 dB (Wideband) 70 dB (Narrowband)
JSR	110 dB
Interfaces	RS 232 – 485, Ethernet
Dimensions	75 x 70,5 x 24,5 mm (W x L x H)
Weight	300 gr ± 50
Power	28 V, < 12 W

4.3. 8 Channel Anti-Jamming GNSS Products



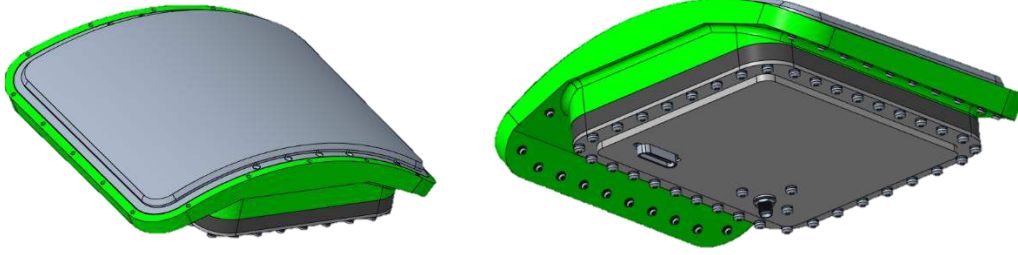
Product	MS.GNSS.AJ-830-R
Receive Channels	8
Supported Frequency Bands	All simultaneous and independent 3 frequency bands • GPS L1, GALILEO E1, QZSS L1, BEIDOU B1C, SBAS • GLONASS L1 • BEIDOU B1I Independent beam nulling at each frequency band
Anti-jamming Techniques	• Beam Nulling • Pulse Blanking • Frequency Notch
GNSS Receiver	• Internal GNSS Receiver Support
Jamming Suppression	50 dB (Wideband) 70 dB (Narrowband)
JSR	110 dB
Interfaces	RS 232 – 485, Ethernet
Dimensions	90 x 66 x 21.7 mm (W x L x H)
Weight	450 gr ± 50
Power	28 V, < 25 W

Product	MS.GNSS.AJ-831-R
Receive Channels	8
Supported Frequency Bands	All simultaneous and independent 3 frequency bands • GPS L1, GALILEO E1, QZSS L1, BEIDOU B1C, SBAS • GLONASS L1 • BEIDOU B1I Independent beam nulling at each frequency band
Anti-jamming Techniques	• Beam Nulling • Pulse Blanking • Frequency Notch
GNSS Receiver	• Embedded Meteksan Multiband GNSS Receiver with advanced anti-spoofing capabilities • GPS L1CA, GLONASS L1, BEIDOU B1I, GALILEO E1
Jamming Suppression	50 dB (Wideband) 70 dB (Narrowband)
JSR	110 dB
Interfaces	RS 232 – 485, Ethernet
Dimensions	90 x 66 x 24 mm (W x L x H)
Weight	450 gr ± 50
Power	28 V, < 25 W



Product	MS.GNSS.AJ-850-R
Receive Channels	8
Supported Frequency Bands	All simultaneous and independent 5 frequency bands • GPS L1, GALILEO E1, QZSS L1, BEIDOU B1C, SBAS • GLONASS L1 • BEIDOU B1I • GPS L2 • GLONASS L2 Independent beam nulling at each frequency band Optional support for • GPS L5, GALILEO E5a, QZSS L5, BEIDOU B2A • GALILEO E5b, GLONASS G3, BEIDOU B2
Anti-jamming Techniques	• Beam Nulling • Pulse Blanking • Frequency Notch
GNSS Receiver	• Internal GNSS Receiver Support
Jamming Suppression	50 dB (Wideband) 70 dB (Narrowband)
JSR	110 dB
Interfaces	RS 232 – 485, Ethernet
Dimensions	148 x 70.5 x 29.5 mm (W x L x H)
Weight	600 gr ± 50
Power	28 V, < 33 W

Product	MS.GNSS.AJ-851-R
Receive Channels	8
Supported Frequency Bands	All simultaneous and independent 5 frequency bands • GPS L1, GALILEO E1, QZSS L1, BEIDOU B1C, SBAS • GLONASS L1 • BEIDOU B1I • GPS L2 • GLONASS L2 Independent beam nulling at each frequency band Optional support for • GPS L5, GALILEO E5a, QZSS L5, BEIDOU B2A • GALILEO E5b, GLONASS G3, BEIDOU B2
Anti-jamming Techniques	• Beam Nulling • Pulse Blanking • Frequency Notch
GNSS Receiver	• Embedded Meteksan Multiband GNSS Receiver with advanced anti- spoofing capabilities • GPS L1CA, GLONASS L1, BEIDOU B1I, GPS L2, GLONASS L2
Jamming Suppression	50 dB (Wideband) 70 dB (Narrowband)
JSR	110 dB
Interfaces	RS 232 – 485, Ethernet
Dimensions	148 x 70.5 x 29.5 mm (W x L x H)
Weight	600 gr ± 50
Power	28 V, < 33 W



Product	MS.GNSS.AJ-1630
Receive Channels	16
Supported Frequency Bands	All simultaneous and independent 5 frequency bands GPS L1, GALILEO E1, QZSS L1, BEIDOU B1C, SBAS GLONASS L1 BEIDOU B1I Independent beam nulling at each frequency band
Anti-Jamming Techniques	Beam Nulling Pulse Blanking Frequency Notch
Gnss Receiver	Internal GNSS Receiver
Jamming Suppression	50 dB (Wideband) 70 dB (Narrowband)
JSR	110 dB
Interfaces	RS 232 – 485, Ethernet
Dimensions	160 x 127 x 30 mm Antenna dimensions can change regarding to platform.
Weight	TBD
Power	28 V, < 40 W

4.4. Environmental Specifications

Humidity	MIL-STD-810G Method 507.5 (30° C ± 60° C - %95)
Temperature Storage Operating	-40° C ± 71° C
Rain	MIL-STD-810G Method 506.5
Salt Fog	MIL-STD-810G Method 509.5
Solar Radiation (Sunshine)	MIL-STD-810G Method 505.5
Fungus	MIL-STD-810G, Method 508.6
Temperature Shock	MIL-STD-810G Method 503.5
Vibration	MIL-STD-810G Method 514.7 AECTP 400 Edition 3 Shipborne Vibration Test Description
Sand and Dust	MIL-STD-810F Method 510.4
Altitude Specs	
Operating	max 52000 ft (MIL-STD-810F Method 500.5)
Storage	max 15000 ft (MIL-STD-810F Method 500.5)



5. CRPA Antenna Types



	CRPA-440	CRPA-830	CRPA-860	
Dimensions	105 x 105 x 24 mm	Configured by Platform Sizes	150 x 150 x 25 mm	110 x 110 x 25 mm
Frequency Bands	L1,G1,B1,E1	L1,G1,B1,E1	L1, G1, B1, E1, QZSS L1, L2, G2	L1, G1, B1, E1, QZSS L1, L2, G2
Antenna Array	4 (Passive)	8 (Passive)	8 (Passive)	8 (Passive)
Polarization	RHCP	RHCP	RHCP	RHCP
Impedance	50 Ohm	50 Ohm	50 Ohm	50 Ohm
Radiation Pattern	Hemispherical	Hemispherical	Hemispherical	Hemispherical
VSWR	< 2.0	< 2.0	< 2.0	< 2.0
Weight	< 320 gr	Configured by Platform Sizes	< 1000 gr	< 600 gr

6. Contact



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