

## RAJA KV-4AJ4.x-RO-OEM MULTI-BAND GNSS JAMMING SUPPRESSOR

- NavIC L1, L5, S-band support
- Quad-band GNSS jamming suppressor: 4 frequency bands simultaneously (consider specified options)
- Multi-system solution: NavIC / GPS / Galileo / GLONASS / BeiDou / QZSS can be used (consider specified options)
- Up-converter RF output for external GNSS receivers
  - Up to 40 dB jammer suppression ratio
  - Up to 100 dB J/S performance with external third party GNSS receiver
  - Small size: 113 mm × 78 mm × 9.5 mm
  - Low power consumption: less than 11.0 W
  - Support of up to 3 jammers simultaneously for each of frequency bands
  - Receiver based on own NTLab's high-performance ASICs: RFFE, anti-jamming processors



The purpose of using the RAJA KV-4AJ4.x-RO-OEM module is to ensure stable reception of the navigation signal in conditions of staged interference. The module should be used with the KV-AJAx phased antenna array (see the antenna array description page), and can be separately integrated into a third-party device. This OEM module can also be presented in the form of rugged enclosure version with external connectors to meet the requirements of IP or MIL-STD (please see the RAJA KV-4AJ4.x-RO-R and RAJA KV-4AJ.x-RO-A series).

Coupled with the use of a multi-band 4-element antenna array (the antenna can be provided by Kosminis Vytis), the quad-band solution allows to suppress interferences in up to 3 directions on 4 frequency plans simultaneously. This approach provides significantly higher protection against interference compared to single-frequency options.

The RF up-converter outputs the jamming-free cleared RF signal to external non-protected GNSS receiver to obtain Position, Velocity and Time (PVT).

## TECHNICAL SPECIFICATION

Product code: KV-4AJ4.x-RO-OEM (4AJ4- 4-channel quad-band GNSS jamming suppressor,  
x – GNSS signal option, RO – RF output only, OEM – enclosureless)

	Option <sup>(1)</sup> 4.5	Option <sup>(1)</sup> 4.6	Option <sup>(1)</sup> 4.7
<b>GNSS signals</b>	NavIC L1, L5, S GPS L1(C/A), L2, L5 Galileo E1, E5a BeiDou B1I, B2a QZSS L1, L5 SBAS L1, L5	NavIC L1, L5, S GPS L1(C/A), L5 Galileo E1, E5a GLONASS G1 BeiDou B1I, B2a QZSS L1, L5 SBAS L1, L5	NavIC L5, S GLONASS G1, G2 GPS L5 Galileo E5a BeiDou B2a QZSS L5 SBAS L5
<b>Frequency band, MHz</b>	L1, E1 (1575.42±3.75) L5, E5a, B2a (1176.45±11.25) S (2492,028±3.75) B1I (1561.098±3.75) L2 (1227,6±11.25)	L1, E1 (1575.42±3.75) L5, E5a, B2a (1176.45±11.25) S (2492,028±3.75) B1I (1561.098±3.75) G1 (1602±7.5)	L5, E5a, B2a (1176.45±11.25) S (2492,028±3.75) G1 (1602±7.5) G2 (1248.06±7.5)

Parameter	Description	Note
<b>Interference rejection:</b>		
Single interference Suppression	Up to 40 dB	For one CW signal of single jammer
	Up to 30 dB	For one AWGN signal of single jammer
Several interference Suppression (up to three)	Up to 32 dB	For one CW signal of each jammer
	Up to 23 dB	For one AWGN signal of each jammer
<b>Interference resistance Interference resistance (with external third party GNSS receiver):</b>		
Single jammer	Up to 100 dB (J/S)	
Several jammers	Up to 82 dB (J/S)	Up to three directions
<b>Number of channels</b>	4	For each frequency band
<b>Operation mode</b>	RF output	Jamming-free signal bands depending on option
<b>Up-converter RF output</b>	1 pc	
<b>Supply voltage</b>	12 V...36 V	24 V typical
<b>Power consumption</b>	< 11 W	Depending on option
<b>Dimensions</b>	113 mm × 78 mm × 9.5 mm	
<b>Weight</b>	50 g	
<b>Operating temperature<sup>(2)</sup></b>	-40 °C ...+71 °C	
<b>Storage temperature</b>	-40 °C ...+85 °C	
<b>Connectors:</b>		
RF	MMCX	
Power	Molex 530470410	

(1) - other GNSS signals are available on request

(2) - (-40 + 85)°C extended temperature range is available on request

## CONTACTS

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Information is subject to change without notice.  
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