

## Beast

### Dismount Multi-Channel Receiver

Beast is Mastodon's flagship handheld receiver. The device conducts signal search, radio monitoring, radio detection, and spectrum monitoring tasks, as well as performing interference hunting and direction finding functions. The unit has two channels capable of simultaneous receive across the 500kHz to 6GHz frequency range, each providing up to 50MHz of instantaneous bandwidth and supporting demodulation of both narrowband and cellular SOIs. Its robust feature set is housed in a low-SWaP, hardy exterior that makes it ideal for a variety of dismount operations in adverse conditions.



#### Versatile Wideband Scan, Record, and DF

Beast's simultaneous, 2-channel wideband scan provides operators the ability to monitor and collect on 50 MHz of simultaneous spectrum to greatly increase detection capabilities. In addition to allowing direction finding on 8 signals simultaneously, the Beast's 16 digital down converters can listen to and record up to 16 conversations concurrently within a specified bandwidth. Captured data can be recorded to the removable SD card when using the Diablo application or saved directly to the hard drive of a Windows PC running Ice Bucket.

#### Rugged & Tactical

Beast offers balanced battery life, low SWaP, and high performance in a rugged exterior that was designed to meet MIL-STD-810G hardware specifications. Compatible with PRC-148/152 batteries, the transceiver also accepts 2590/5590 series batteries for extended life missions and an optional battery adapter for static operations.

#### Intuitive User Interfaces

The real-time display available in Diablo and Ice Bucket provides spectrum and waterfall representations of the full receiver bandwidth. The Beast can be intuitively programmed with search bands, signals of interest (SOIs), and pass lists. In addition to a backlit, daylight readable front panel interface for hardware configuration, the Beast can be controlled via two separate interfaces, according to mission profile and user needs.

#### 3rd-Party Analysis Integration

Integrates with several analysis, detection, and survey applications including:

- SNARE: survey tool for Cellular, DMR, UAS, IOT
- OmniSig: AI enabled signals classification
- SCEPTRE: signal processing suite for real-time or offline analysis
- GOTS SW: information available upon request

#### Future Proof

Mastodon continually invests in adding capabilities and enhancements to this hardware platform. Integrating customer feedback and technological advancements, Beast will adapt as your mission requirements change.

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### Modular Components and Mission-Adaptive Systems

With a wide range of DF antenna, power amplifier, and system integration accessories, Mastodon provides customized Beast system solutions for any type of mounted or dismount mission.

#### Direction Finding Solutions

Mastodon offers a full line of direction-finding antennas, each of which supports intercept and DF simultaneously and is ruggedized for use in a variety of harsh environments. In addition to the flagship Multiband DF Head, Mastodon's direction-finding portfolio includes Dismount DF for a lower physical profile and Wideband DF for a broader mission set and to support Frequency Hopping (FHOP or FHSS) missions.

#### Dismount Power Amplifiers



Available for both Low Band and Wideband frequency ranges, Mastodon power amplifiers can be or used with the Beast in dismount operations or mounted on a Kraken and are compatible with a variety of antenna options.

*Pictured: Wideband Power Amplifier*

Beast Specifications	
Number of Receivers	2
Simultaneous Demodulators	16
Radio Receive Frequency Range	500 kHz - 6 GHz
Instantaneous Bandwidth (IBW)	50 MHz
Receive Modes	WFM, NFM, SFM, WAM, AM, NAM, USB, LSB, CW, DMR, P25, NXDN, TETRA, CUAS, FHSS, TPMS
Rx Frequency Resolution	10 Hz minimum
Transmit	Tx capable w/optional external PA (RF & Control)
Antenna Connector Type	2x TNC RF In, 1x SMA WiFi, 1x SMA GPS
Impedance	50 ohms
Input Voltage	9-18 VDC
Battery Life	Up to 5 hours depending on mission profile
Operating Temperature	-30 C to 55 C
Dimensions	2.9" W x 9.3" H x 2.0" D
Weight	< 2 lb. (radio only) / 2 lb. 11 oz with battery
Environmental	Designed to meet MIL-STD-810G

Part Number	Description
MD1007-1000-01	Dismount Multi-Channel Receiver
<b>Please contact your Mastodon Design Representative to discuss available kit options and products to meet your operational needs.</b>	

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Mastodon Design develops technically advanced, user-friendly solutions that meet the rigorous demands of today's military faster, cheaper, and better than anyone in the industry. We combine decades of world-class engineering expertise with real-world Special Operations Forces experience to deliver superior products in a customer-focused environment of agility and responsiveness.