SigmaQ is a powerful GNSS receiver designed for high accuracy applications with requirements of the three-dimensional position and attitude, linear and angular velocity determination of the four-antenna system using the dual frequency code and carrier data from four antennas. 216 channels of single or dual frequency GPS, Galileo and GLONASS in a small attractive, sturdy, and watertight box, which contains Quattro-G3D board. Two external power inputs secure the power system redundancy and eliminate system failure. The on-board power supply on SigmaQ receiver accepts any voltage from +10 to +30 volts and delivers clean filtered voltage where needed.
Specifications are subject to change without notice.

**Standard Configuration**
- GPS L1/L2/L2C (all antennas)
- Galileo E1 (all antennas)
- GLONASS L1/L2 (main antenna only)
- Up to 50 Hz with attitude engine turned off

**Optional Features**
- QZSS
- BeiDou B1
- Four External GNSS Antenna TNC Female connectors
- Rechargeable Li-Ion Batteries

**Performance Specifications**
- **Attitude accuracy**
  - Autonomous
  - Static, Fast Static Accuracy
  - Kinematic Accuracy
  - Linear velocity accuracy
  - Cold start; warm start

**Reacquisition**
- Battery
- External Power Input

**Radio Specifications**
- **3.5G UMTS/HSPA Module**
  - Global (850/1900/2100) /North America (850/1900/1700-2100 AWS) /Europe (900/2100)
  - GSM/GPRS/EDGE Class 10

**Power Specifications**
- **Battery**
  - Internal Memory
  - Rechargeable Li-Ion Pack

**Environmental Specifications**
- **Enclosure**
  - Aluminum extrusion, waterproof IP67
- **Operating Temperature**
  - -40°C to +75°C ❄️
- **Storage Temperature**
  - -45°C to +85°C ❄️
- **Humidity**
  - 95%
- **Weight**
  - W: 132 mm x H: 61 mm x D: 190 mm

**Specifications**
- Total 216 channels; all-in-view (GPS L1/L2, Galileo E1, GLONASS L1/L2/LS, QZSS, BeiDou B1, SBAS L1) integrated receiver, rugged aluminum housing with TriPad interface and rechargeable Li-Ion battery pack

**Signals Tracked**
- GPS C/A, P1, P2, L2C (L+M)
- **Galileo E1 (E5a)***
- **GLONASS C/A, L2C, P1, P2 (main antenna only)**
- **QZSS C/A, L1C (I+Q), L2C (L+M), SAIF**
- **BeiDou B1**
- **SBAS L1**

**Real Time heading - 0.004/L [rad] RMS***
- **Roll/Pitch - 0.0065/L [rad/s]***
- Angular velocity determination - 0.05/L [rad/s]***
- Determination of antennas relative position - 10 mm RMS

**Horizontal:**
- < 2 m
- Horizontal: 0.3 cm + 0.1 ppm + base_line_length****

**Vertical:**
- Linear velocity accuracy
- < 0.25 m post processing; < 0.5 m real-time

**< 0.5 m/s**
- 1 Watt
- Internal 5.2 V, 5.8 Ah each)

**Two internal Li-ion batteries (7.4 V, 5.8 Ah each)**
- With internal charger
- <1 second

**Radio Modules**
- **CDMA 2000 Module**
  - Internal CDMA2000 dualband module 800/1900MHz
- **Internal UHF/VHF Modem**
  - Internal 138-174 MHz radiotransceiver, up to 38.4kbps
- **Internal 3.5G UMTS/HSPA Module**
  - Global (850/1900/2100) /North America (850/1900/1700-2100 AWS) /Europe (900/2100)
- **Internal GSM/GPRS/EDGE Module**
  - Internal GSM/GPRS/EDGE quad-band module, GPRS/EDGE Class 10

**Internal Memory**
- Up to 2048MB of on-board non-removable memory for data storage
- Up to 20 times per second (20Hz)*

**Recover Time**
- Up to 1 second

**Input/Output**
- Two External Power Inputs
- **Mounting Bracket**

**Status Indicator**
- Two LEDs, two function keys (TriPad)

**Memory & Recording**
- **Internal Memory**
  - Raw Data Recording

**Communication Ports**
- **Other I/O Signals**
  - Two Event Markers
  - IP67 External Reference Frequency Input/Output

**Real Time Data**
- Up to 2048MB of on-board non-removable memory for data storage
- Up to 20 times per second (20Hz)*

**Specifications**
- JAVAD GNSS
- www.javad.com
- Rev. 2.6 January 29, 2015

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**Notes:**
- *Where L is the antenna separation in [m]
- ****For good observation conditions and proper length of observation session
- *****The operating temperature range of Li-ion batteries is -30 °C to +55°
- ******The storage temperature of Li-ion batteries is -20 °C to +45°