RELAY7

RTK rover radio module for SMART7 antennas

**Easy integration**
RELAY7 from Hexagon | NovAtel is a rover radio module that attaches to the SMART7 to create a single unit for easy system integration and installation.

**Multiple UHF radio options**
With the option of a 400 MHz or 900 MHz radio, receive RTK corrections from a compatible base station using one of the many supported correction formats.

**Magnetic or screw mounting options**
The SMART7/RELAY7 combination can be mounted to a vehicle using integrated magnets or screws.

**Benefits**
- Radio connectivity for SMART7 to receive RTK corrections

**Features**
- 400 MHz option compatible with various base stations
- 900 MHz option compatible with Freewave base stations
## Performance

### Radio Options
- 400 MHz
- 900 MHz

## Radio Specifications

### 400 MHz Model
- **Frequency band (receive only):** 403 to 473 MHz
- **Rx sensitivity:**
  - @ 25 kHz: -103 dBm
  - @ 12.5 kHz: 103 dBm
- **Optional Ethernet Cable:** M12D (M) to (F)
- **Mounting:**
  - 4 x M4 screw inserts
  - Integrated magnetic mount
- **Power:** Input voltage range +7 to +30 VDC
- **Power Consumption:** 2 W typical
- **Status LED:** 1
- **Interface Ports:**
  - Pass through from SMART7
  - RS-232 dedicated ports: 2
  - CAN Bus: 1
  - Ground speed output: 1
- **Interface Connector:** 14-pin Tyco AMPSEAL
- **External Radio Antenna Connector:** TNC female jack, 50 Ω nominal

### 900 MHz Model
- **Frequency band (receive only):** 902 to 928 MHz
- **Rx sensitivity:** -108 dBm
- **Interface Ports:**
  - Pass through from SMART7
  - RS-232 dedicated ports: 2
  - CAN Bus: 1
  - Ground speed output: 1
- **Interface Connector:** 14-pin Tyco AMPSEAL
- **External Radio Antenna Connector:** TNC female jack, 50 Ω nominal

## Radio Compatibility

### 400 MHz Model
- SATEL 3AS
- PacCrest – 4FSK
- PacCrest – GMSK
- PacCrest – FST
- TrimTalk 450s (P)
- TrimTalk 450s (T)

### 900 MHz Model
- Freewave MM2-T (900 MHz) point to multipoint

## Physical and Electrical

### Dimensions
- 186.5 mm L x 199.5 mm W x 76.4 mm H

### Weight
- <850 g

## Environmental

### Temperature
- **Operating:** -40°C to +70°C
- **Storage:** -45°C to +80°C

### Humidity
- MIL-STD-810G(CH1), 507.6

### Sand and Dust
- MIL-STD-810G(CH1), 510.6

### Immersion
- MIL-STD-810G(CH1), 512.6

### Vibration
- MIL-STD-810G(CH1), 514.7

### Shock
- MIL-STD-810G(CH1), 516.7

### Solar Radiation
- MIL-STD-810G(CH1), 505.6

### Salt Fog
- MIL-STD-810G(CH1), 509.6

### Ingress Protection Rating
- IP67, IP69

## Available Hardware Models
- RELAY7-400
- RELAY7-900

## Optional Accessories
- 400 MHz or 900 MHz antenna
- Interface cable
- Ethernet passthrough cable

## Compliance
- FCC, ISED, CE Mark, E-Mark

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**Contact Hexagon | NovAtel**
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For the most recent details of this product: novatel.com

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