

# RELAY7

RTK rover radio module for SMART7 antennas



RELAY7 shown mounted at rear of a SMART7

## 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 -103 dBm @ 25 kHz  
103 dBm @ 12.5 kHz

#### 900 MHz model

Frequency band (receive only) 902 to 928 MHz  
Rx sensitivity -108 dBm

### 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 L x 199.5 W x 76.4 H mm

**Weight** <850 g

**Interface connector** 14-pin Tyco Ampseal

**External radio antenna connector**  
TNC female jack, 50 Ω nominal

**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

## 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

### Compliance

FCC, ISED, CE Mark, E-Mark

### Available hardware models

- RELAY7-400
- RELAY7-900

### Optional accessories

- 400 MHz or 900 MHz antenna
- Interface cable
- Ethernet passthrough cable

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