

For Satellite Bus

# Spread Spectrum CMDRX (C40 Series)

C40 Command Receiver (CMDRX) is NEC's latest CMDRX series that is capable of using the direct spread spectrum communication system with short carrier acquisition time.

## Applications

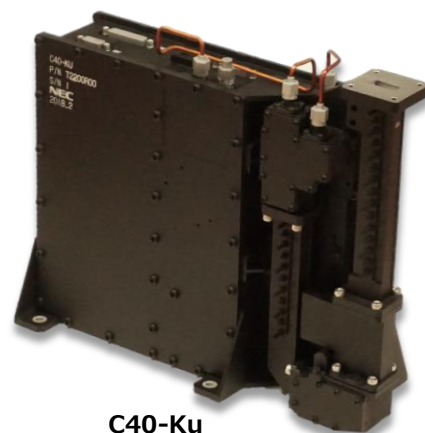
- Satellite bus

## Main Features

- Strong immunity for jamming and interference
- Short carrier acquisition time
- C, Ku, K and Ka-band are available
- Fully comply with ETSI standard (EN 301 926 V1.3.1)

## Qualifications & Heritage

- Design based on CMDRX with strong flight heritage.



C40-Ku

## Specifications

### Electrical Characteristics

Operating frequency	C, Ku, K, and Ka-band
Modulation	Direct spread spectrum
Input range	-125 to -60 dBm (@1kbps, BER<1×10 <sup>-6</sup> )
Agile bandwidth	512 MHz : C-band 750 MHz : Ku, K, Ka-band
Frequency acquisition range	±22ppm with ±1.7ppm/s
Bit rate	0.25, 0.5, 1, 2, 4 kbps
Chip rate	3.069 Mcps (option 5.115 Mcps)
Immunity performance	>+17 dB for 1 jammer >+7 dB for 10 jammers (Input power ≥ -120dBm)

Carrier acquisition time	≤ 3 sec (average, except for Ka band) ≤ 5 sec (average, for Ka band)
Power consumption	18W (max.)

### Physical Characteristics

Dimensions	(W) 237 mm (D) 82 mm (H) 171 mm
Mass	1.8 kg nom.

### Environment

Temperature	-30°C to +66°C (Acceptance) -35°C to +72°C (Qualification) -40°C to +75°C (Non-operating)
Lifetime	18 years in GEO

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