TDC

Outdoor and Indoor Frequency Tracking Down Converters for antenna autotrack systems up to Q-band



- Auto-calibration
- Internal synthesizer
- Low gain / phase shift
- Status monitors & summary alarm
- RS-422 or ethernet M & C

INPUT

- Freq. band - See ordering information scheme
- 2 or 3 channels - See ordering information scheme
- Level from -100 dBm to -30 dBm
- Noise figure ≤12 dB
- Connector SMA female, 2.9 mm(K) in the Ka Band2 version

OUTPUT

- Freq (Fo) 70 MHz
- 2 or 3 channels
- Pout @ 1 dB compression ≥5 dBm
- Connector SMA female, N in outdoor version

TRANSFER

- Conversion gain 25 dB ±5 dB
- Image rejection >60 dB
- Isolation between channels >60 dB

FREQUENCY REFERENCE

- Frequency 5 and 10 MHz
- Connector BNC female, SMA in outdoor version

LOCAL OSCILLATOR

- Step size 1 kHz
- Phase Noise:
  @ 100 Hz: -68 dBc/Hz
  @ 1 kHz: -80 dBc/Hz
  @ 10 kHz: -88 dBc/Hz

POWER SUPPLY

- Voltage 115 / 240 Vac ±10%
- Frequency 47 to 63 Hz
- Consumption 50 VA typ

AUTO CALIBRATION

The Auto-calibration process is periodically performed for gain compensation and the phase offset between channels

MONITORING & CONTROL

- Serial RS422 Interface
- Ethernet via the CTR70

RELIABILITY

- MTBF 50 000 hours
- MTTR 1 h with an equipment spare

MECHANICAL CHARACTERISTICS

- INDOOR:
- Drawer 19" x 2 U x 460 mm
- Weight 12 kg

- OUTDOOR:
- Drawer 400 x 312 x 130 mm (excluding connectors and mounting brackets)
- Weight 15 kg



OUTDOOR PACKAGE

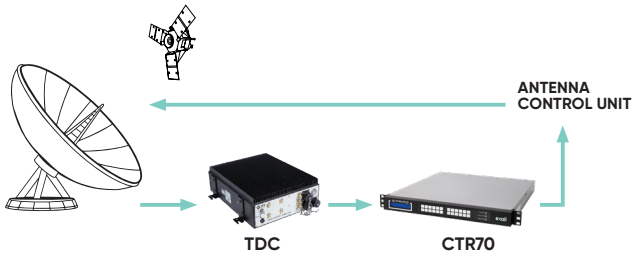
ISO9001/EN9100/AS9100/JISQ9100

EUROPEAN CONFORMITY
EN 301489-1
EN 62368-1
MIL-STD-810G (TABLE 5146C-IICAT 4 + SHOCK 30G11ms)

2026-10 | V005

SYSTEM OVERVIEW

Antenna Tracking system for optimum RF signal strength from a moving satellite



ENVIRONMENTAL CONDITIONS

- INDOOR:
- Operating 10 °C to 40 °C
- Storage -30 °C to +70 °C
- Humidity 95% @ 35 °C

- OUTDOOR:
- Operating -20 °C to 50 °C
- Storage -30 °C to +70 °C
- Humidity 100 % in operating
- Waterproofness IP65

ORDERING INFORMATION SCHEME

Example TDC E - Ka1 In

PRODUCT TYPE
TDC with autocal

AUTOCAL VERSION
B = 2 channels (∑ and one Δ)
E = 3 channels (2 ∑ and one Δ)
F = 3 channels (∑ and 2 Δ)

PACKAGE
In= indoor
Out= outdoor

FREQUENCY BAND
C1= 3.4 to 4.2 Ghz
C2= 4.5 to 4.8 Ghz
S = 2.2 to 2.3 GHz
X1= 7.25-7.75 Ghz
X2= 7.90-8.50 Ghz
Ku = 10.75 to 12.75 Ghz
Ka1= 17.70 to 21.20 Ghz
Ka2= 25.50 to 27.00 Ghz
Q = 37.5 to 70.00 GHz

HEAD OFFICE:

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