CTR70

All-in-one True Monopulse Tracking Receivers for antenna autotrack systems



- Key equipment of the tracking chain
- High accuracy tracking with exail standard downconverter (model TDC)
- Autocalibration and autophasing functions included
- Monopulse and monoscan applications

CHARACTERISTICS

- Input frequency 70 MHz ±1,5 MHz
- Noise figure < 13 dB max
- Interchannel isolation > 60 dB
- IF rejection > 50 dB
- Image rejection > 50 dB
- Dynamic range > 80 dB
- Input level
  Σ: -100 dBm/ -10 dBm Δ: -120 dBm / -30 dBm
  Co-polar: -120 dBm /-40 dBm
- Input VSWR
  - 1.5: 1 / 50 Ω
  - Connector type SMA
- Search range (in kHz) ±1 to ±1500 step 1 kHz
- Phase adjustment 0° - 360°
- Error signal
  - Level up to ±10 V
  - Impedance 1 kΩ
  - Bandwidth 1, 10, 100, 1000 ms (integration time)
  - Drift ±5° / ± 1 dB
- Auxiliary outputs
  - AGC, IF (Σ, Δ)
  - APA + Lock status
- Autocalibration (with exail TDC) and autophasing functions

MONITORING & CONTROL

- Interface Ethernet, RS232

POWER SUPPLY

- Voltage 100 V / 240 V ±10%
- Frequency 47 to 63 Hz
- Consumption <60 VA

COHERENT MODE

- Loop bandwidth (2 BL in Hz) 10,30,100,300,1000,3000
- Acquisition threshold: 10 dB in 2 BL
- Anti-side band system: Yes
- Frequency stability: ±5. 10-8/day or external reference

NON-COHERENT MODE

- IF bandwidth (kHz) 10,50, 150, 500, 1500, 5000
- Acquisition threshold S/N in IF ≥ 3 dB

MONOSCAN

- Dynamic Range -80 to -20 dBm
- Coherent:
  - Loop bandwidth 1000 Hz
  - Acquisition threshold 10dB in 2BL
- Non-coherent:
  - IF bandwidth 5000 kHz
  - Acquisition threshold S/N in IF ≥ 3 dB

ENVIRONMENTAL CONDITIONS

- Temperature
  - Operating: +10 °C to +45 °C
  - Non-operating: -30 °C to +70 °C
- Humidity
  - Operating: 90% without condensing
  - Non-operating: up to 95% at 30 °C

RELIABILITY

- MTBF 40 000 hours

ISO9001/EN9100/AS9100/JISQ9100

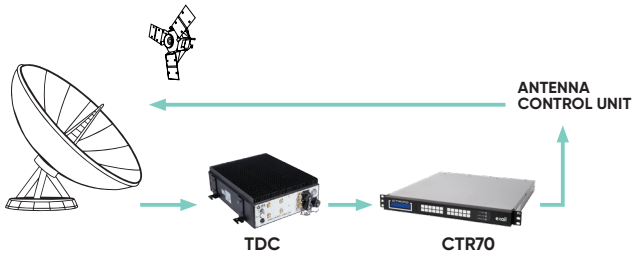
EUROPEAN CONFORMITY
EN 301489-1
EN 62368-1
MIL-STD-810G (table 5146C-II cat 4 + shock 30G11ms)

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exail

SYSTEM OVERVIEW

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

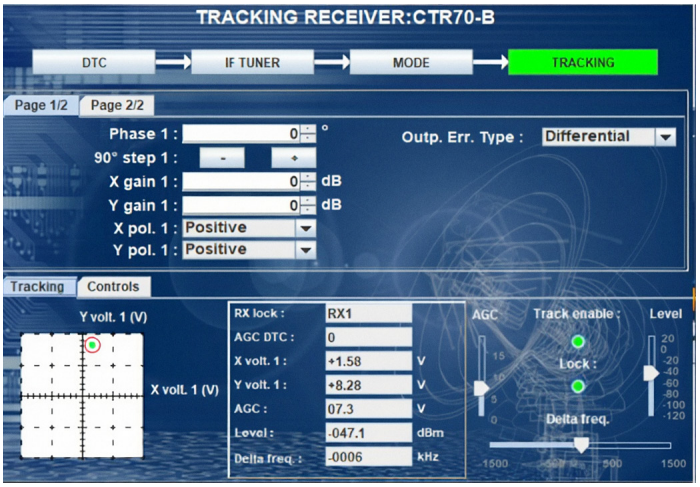


DIMENSIONS

- Drawer 19″ x 1 U x 460 mm (depth)
- Weight 8.3 kg

CONFIGURATIONS

- 1 channel in Monoscan
- 2 channels (Σ, Δ, X/Y=90°)
- 3 channels (2 Σ, 1 Δ)
- 3 channels (Σ, X, Y)



REMOTE GUI

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