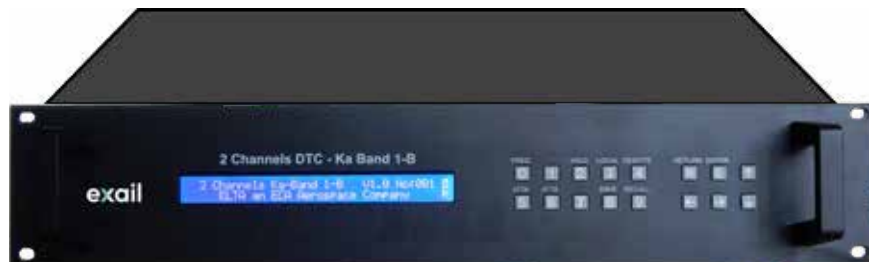


TDC

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



ISO9001/EN9100/AS9100/JISQ9100

EUROPEAN CONFORMITY

EN 301489-1

EN 60950-1

MIL-STD-810G (TABLE 5146C-IICAT 4 + SHOCK 30G11ms)

TDC

OUTDOOR AND INDOOR FREQUENCY TRACKING DOWN CONVERTERS FOR ANTENNA AUTOTRACK SYSTEMS UP TO Q-BAND

INPUT

- Freq. band – 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
- 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

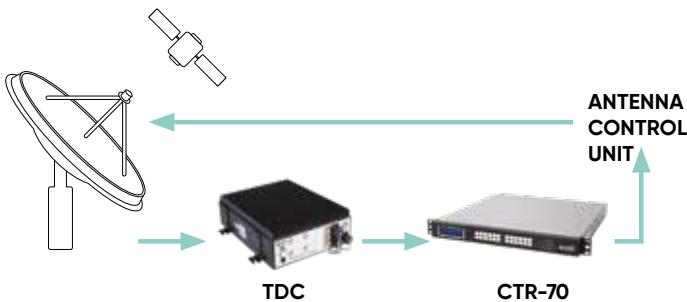
- Step size 1 KHz
- Phase Noise:
@100Hz: -68 dBc/Hz
@ 1KHz: -80 dBc/Hz
@ 10KHz: -88 dBc/Hz

POWER SUPPLY

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

SYSTEM OVERVIEW

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



HEAD OFFICE:

Exail Aerospace SAS

ZAC de Saint Martin du Touch
6 Impasse Alice Guy
31300 Toulouse - FRANCE
+33 5 62 11 17 17 | contact-aerospace@exail.com

www.exail.com

AUTO CALIBRATION

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

MONITORING & CONTROL

- Interfaces RS422
- Ethernet via the CTR-70

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 400 x 150 mm
 - Weight 15 kg



OUTDOOR PACKAGE

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		
AUTOCAD VERSION			
B = 2 channels (Σ and one Δ)			
E = 3 channels (2 Σ and one Δ)			
F = 3 channels (Σ and 2 Δ)			
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 = 10,70 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			
PACKAGE			
In= indoor			
Out= outdoor			