



Compact Tracking Receiver

CTR70



REMOTE GUI



REAR PANEL

1 PRODUCT DESCRIPTION

The SPACELINK SYSTEM is directly derived from our multi-modes experience. With new technologies and new digital boards, Elta shows its own capability to develop a complete solution for tracking, demodulation, synchronization & decoding in a single equipment.

The characteristics of Compact Monopulse Tracking Receiver Model CTR70 are defined hereafter. Associated to our standard down-converter (Model DTC from L Band up to Ka Band), it provides Customers a full subsystem doing high accuracy tracking thanks to an internal auto-calibration mode.

4 models are designed for different User applications.

2 MODELS

- CTR70B: Two channels (1 Sum, 1 Error X/Y = 90°)
- CTR70D: Three channels (1 Sum, 1 Error, 1 co-polar)
- CTR70E: Three channels (2 Sum, 1 Error)
- CTR70F: Three channels (1 Sum, 1 X, 1 Y)

TYPICAL CHARACTERISTICS OF CTR70

Input frequency	70 MHz \pm 1,5 MHz	Input VSWR	1.5:1 / 50 Ω Connector type SMA
Noise figure	< 10 dB max	Search range (in kHz)	\pm 1500, \pm 500, \pm 150, \pm 50, \pm 15, \pm 5
Interchannel isolation	60 dB min	Phase adjustment	0 up to 359°
IF rejection	> 70 dB	Error signal – Level – Impedance – Bandwidth (integration time) – Drift	up to \pm 10 Volts 1 k Ω 1, 10, 100, 1000 ms \pm 5° / \pm 1dB
Image rejection	> 80 dB	Auxiliary outputs	AGC, IF (Σ , Δ) APA + Lock status
Dynamic range	> 80 dB		
Input level	Sum: -100dBm/ -10dBm Δ : -120dBm / -30dBm Co-polar : -120 dBm -40 dBm		



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COHERENT MODE		NO-COHERENT MODE	
Loop bandwidth (2 BL in Hz)	10, 30, 100, 300, 1000, 3000 Hz	IF bandwidth (kHz)	50, 150, 500, 1500, 5000
Acquisition threshold	8dB in 2BL	Acquisition threshold	S/N in IF \geq 3 dB
Anti-side band system	Yes		
Frequency stability	$\pm 5 \cdot 10^{-8}$ /day or external reference		
MONITORING & CONTROL			
Interface	Ethernet, RS232		
OPTIONS			
Auto-calibration (associated to our DTC) Auto-phasing Specific 2BL values	Acquisition range Log in function : AGC & error voltages recorded & time tagged available by LAN		
POWER SUPPLY		DIMENSIONS	
Voltage	100 V / 240 V ± 10 %	Drawer	Standard 19" 1U 460mm(depth)
Frequency	45 to 65 Hz		
Power consumption	<100VA		
ENVIRONMENTAL CONDITIONS		RELIABILITY	
Temperature	Operating : +15°C to +40°C Non-operating : -20°C to +60°C	MTBF	40 000 hours
Humidity	Operating : 70 % without condensing Non-operating : up to 95 % at 30°C	MTTR With all spare parts	4 hours

3 ORDERING INFORMATION

Part Number **DRA301154**

MODELS

- CTR70-B: Two channels (1 Sum, 1 Error X/Y = 90°)
- CTR70-D: Three channels (1 Sum, 1 Error, 1 co-polar)
- CTR70-E: Three channels (2 Sum, 1 Error)
- CTR70-F: Three channels (1 Sum, 1 X, 1 Y)

OPTIONS

- CTR70 – 001 – Auto-calibration (associated to our DTC)
- CTR70 – 002 – Auto-phasing
- CTR70 – 003 – Specific 2BL values
- CTR70 – 004 – Acquisition range
- CTR70 – 005 – Log in function

This equipment **CAN BE ASSOCIATED TO OUR STANDARD DOWN-CONVERTER** (Model DTC from L Band to Ka Band) to provide Customers a full subsystem doing high accuracy tracking thanks to an internal mode of auto-calibration.

EUROPEAN CONFORMITY: ETS 300339 + NF EN 60950



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HEAD OFFICE - 15 avenue du Docteur Maurice Grynfogel - Zac de Basso Cambou 31035 TOULOUSE Cedex1 - France - (T) + 33 (0)5 61 54 14 54 - (F) + 33 (0)5 34 36 10 01
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