

TC1PRO – Protocol Converter

The TC1PRO is designed to convert DVB-S/S2 traffic to UDP/IP. With its advanced front end, the TC1PRO can handle higher data rates compared to TC1 STREAM.



Product Highlights

1. GigE network interface
2. Roll-off- S2 - Roll-off 0.35, 0.25, 0.20 and 0.15
3. Full L-Band, tuner. Tuner filter bandwidth control to cope with strong neighboring signals
4. S2 profiles: – CCM, VCM including short frames + all MODCODs
5. NCR lock
6. De-capsulation – MPE / GSE selectable by firmware
7. Fully compliant with ESA L.3 protocol and Wireshark GSE dissector
8. Fast lock time
9. Advanced lock and search modes
 - a. L-Band frequency only
 - b. L-Band + symbol rate
 - c. Relock (no search)
10. DiSEqC 2.x, 500ma LNB power (support universal and professional LNB)
11. Network interface – GigE.
12. Hardware processor - Platform for post demodulation processing such as MODCOD statistics gathering in real time, processing of non-standard BBF
13. Compatible with AYECKA TC1 Analyzer software

Product Specifications

Converter

DVB-S/S2
Roll-off factors 0.15,0.2, 0.25,0.35
Signal Level -35 to -75 dBm
Symbol Rates 0.1Msps to 64Msps
Input connector SMA, 50 Ohms.
LNB power 14/18V, 22Khz, DiSEqC 2.0

Hardware processor Hardware processor

FPGA based
BBF over IP according to SatLab
L.3Environmental Conditions
Operating Temp. 10° to 40° C.
Storage Temp. -25° to +85° C

Safety

CE or equivalent
EMI/EMC FCC part 15, Class A

Power

110-240 AC, 12W max

Control & Monitor

Serial port Serial over USB CLI
IP 10/100 BaseT interface
In band UDP over Gige commands to
CLI and SNMP
Traffic IP address Static or DHCP
Management IP setting – Static Physical
Characteristics or DHCP
Detailed SNMP MIB

Upgrade

Software and Firmware are field-
upgradeable
TFTP based
2 images saved in internal Flash

Dimensions

1RU rack mount
Up to 3 TC1Pro in 19" 1RU chassis

Weight

1.8 Kg

MTBF

> 52,000 hours

Supported MODCODS

DVB-S

Convolutional + RS rates:

$\frac{1}{2}$, $\frac{2}{3}$, $\frac{3}{4}$, $\frac{5}{6}$, $\frac{7}{8}$

DVB-S2

QPSK 1/4	1	QPSK 5/6	9	8PSK 9/10	17	32APSK 4/5	25
QPSK 1/3	2	QPSK 8/9	10	16APSK 2/3	18	32APSK 5/6	26
QPSK 2/5	3	QPSK 9/10	11	16APSK 3/4	19	32APSK 8/9	27
QPSK 1/2	4	8PSK 3/5	12	16APSK 4/5	20	32APSK 9/10	28
QPSK 3/5	5	8PSK 2/3	13	16APSK 5/6	21	Reserved	29
QPSK 2/3	6	8PSK 3/4	14	16APSK 8/9	22	Reserved	30
QPSK 3/4	7	8PSK 5/6	15	16APSK 9/10	23	Reserved	31
QPSK 4/5	8	8PSK 8/9	16	32APSK 3/4	24	DUMMY PLFRAME	0