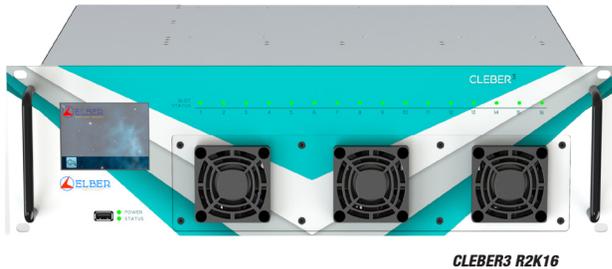


CLEBER3 The Broadcast open Platform



DESCRIPTION

Cleber3 offers a powerful, flexible and modular hardware and software platform for broadcasting and contribution networks, where customers can install up to sixteen boards with no limitations in terms of position or number.

Based on a Linux embedded OS, it detects the presence of the boards and shows the related control interface to the user, either through web GUI and Touchscreen TFT display. Power supply can be single (AC and/or DC) or dual (hot swappable for redundancy).

The high number of slots available minimize the Capex and Opex of customers, simplifying maintenance and management. In just one chassis, it is possible to feed up to 16 DVB-S2 transponders, or monitoring 32 satellite signals, with many redundancy combination at RF, L-Band, IF or baseband level.

Thus Cleber3 can host any combinations of boards, there are particular applications and use cases that can be considered and described separately. See next page to check available plug-in cards and related functions. A dedicated solution datasheet can be asked or find in our website www.elber.com.

FEATURES

- Self-contained modular solution (3U RACK 19")
- 16 plug-in slot available, hot-swap
- TFT front panel control
- Embedded Linux OS
- Single or Dual Power supply (Hot Swappable)
- WEB interface, SNMP v2

Applications

- DVB-S/S2 Modulator
- DVB-S/S2 Receiver
- DAB over Satellite Receiver
- Up-converter 70 MHz to L-Band
- ELBER SSPAs controller
- TS network adapter
- MPEG-2/H.264 HD/SD 1080p 4:2:0/4:2:2 Encoder
- MPEG-2/H.264 HD/SD 1080p 4:2:0/4:2:2 Decoder
- ASI switch (1 output pass-through)
- ASI aggregator and deaggregator
- ASI distributor (1 output pass-through)
- SMPTE310 switch and distributor
- E1 switch and distributor
- FM-MPX over ASI high quality transport
- AES-EBU over ASI high quality transport

SPECIFICATIONS

Control:

TFT touchscreen display 3.5"
Web browser (embedded http server, no additional software needed)
SNMP v2
WiFi Connection 802.11 b/g/n (optional)
Firmware Upgrade: USB, WEB, FTP

Electrical:

Supply: **Dual Redundant Hot-swap**
100-240 V~ 50/60 Hz IEC 320
22 ÷ 65 Vdc 2 pins plug
Consumption: < 320 W

Mechanical:

Chassis: 3U Rack 19"
Dimensions:
Width: 482.5 mm
Height: 130.95 mm
Depth: 348 mm (without handles and connectors)
Weight: up to 8 Kg (depending on number of slots)

Environmental:

Temperature Range: -10 ÷ 55°C
Relative humidity: 0 ÷ 95% non condensing

Plug-in cards:

Modulators:

MS1: DVB-S/S2 modulator card 2 x ASI in L-Band out
MS2/A: DVB-S/S2 modulator card 2 x ASI in L-Band & IF out
MS2/B: DVB-S/S2 modulator card 2 x ASI in IF out
MT2: DVB-T/T2 modulator card 2 x ASI / IP in VHF/UHF out

Receivers:

XS4: DVB-S/S2 receiver card L-Band in 4 x ASI out
XS2: DVB-S/S2 receiver card with CAM module
L-Band in, 4 x ASI, Ethernet & E1 out
XS22: DVB-S/S2 dual receiver card 2 x L -Band in
2 x ASI & Ethernet out
XS2-DAB: DVB-S/S2 receiver card, ETI/EDI out

Demodulators:

DS2: DVB-S/S2 & DVB-T/T2 demodulator card UHF in 2 x ASI out

Upconverters:

UPC-01: 70 MHz to L-Band upconverter

Redundancy switches:

RFSW-04-A: RF switch DC-18GHz SMA in
RFSW-04-B: RF switch DC-18GHz SMA in coaxial relay
RFSW-04-C: RF switch DC-L Band SMA in, input detection
RFSW-04-D1: RF switch DC-L Band BNC in, input detection
RFSW-04-D2: RF switch DC-18 GHz BNC in, coaxial relay

TS switches:

AS-03: ASI Switch 3 inputs, 2 outputs with pass-through
AS-13: ASI Switch 3 inputs, 7 outputs with pass-through

AS-23: Dual ASI Switch 3 inputs, 7 outputs with pass-through

TS aggregators:

RMX-04: 4 channels ASI aggregator over ASI
RMX-14: up to 9 channels ASI aggregator over ASI
DMX-04: ASI disaggregator 4 channels
DMX-14: ASI disaggregator up to 9 channels

TS distributors:

AD-03: ASI Distributor 1 input, 4 outputs with pass-through
AD-13: ASI Distributor 1 input, 9 outputs with pass-through
AD-23: Dual ASI Distributor 1 input, 4 outputs with pass-through

Encoders:

EHD: MPEG-2/H.264 1080i 4:2:2/4:2:0 encoder
CVBS/SDI video in, analogue/AES-EBU/SDI 4 channels audio in, ASI out

Decoders:

DHD/A: MPEG-2/H.264 1080i 4:2:2/4:2:0 decoder
ASI/TSoIP in, CVBS/SDI video out, analogue/AES-EBU/SDI 4 channels audio out. HD downscaling on CVBS out

DHD/B:

MPEG-2/H.264 1080i 4:2:2/4:2:0 decoder
ASI in, CVBS/SDI video out, analogue/AES-EBU/SDI 4 channels audio out with Genlock. HD downscaling on CVBS out

FM gateways:

SRS-06: 4 channels FM MPX and 88-108 MHz to ASI converter
SRS-07: 4 channels ASI to FM MPX and 88-108 MHz converter

AES-EBU gateways:

SRS-03: 4 channels AES-EBU to ASI converter
SRS-04: 4 channels ASI to AES-EBU converter
SRS-05: 4 channels AES-EBU to ASI and ASI to AES-EBU converter

SMPTE310 Processing:

310M-SW: SMPTE310 switch 2 inputs, 10 outputs
310M-D: SMPTE310 distributor 1 input, 11 outputs

E1 Processing:

E1-SW: E1 switch 2 inputs, 5 outputs
E1-D: E1 distributor 1 input, 5 outputs

Super HD:

GAIA: SDI video filter for H.264 HD improvement



**Elber reserves the right to make changes to specifications of products described in this datasheet at any time without notice and without obligation to notify any person of such changes.*

ELBER Srl. Via Pontevicchio, 42W - 16042 Carasco (GE) Italy
Phone +39.0185.351333 fax +39.0185.351300
www.elber.com - elber@elber.it