

## TV-over-Twisted-Pair RF amplifiers DIN-rail mountable

**abitana**

**ABI- EV2000S00** TVoTP RF amplifier – 4 ports

**ABI-EV2008S00** TVoTP RF amplifier – MASTER – 4 ports

**ABI-EV2014S00** TVoTP RF amplifier – SLAVE - 4 ports

ABI- EV2000S00



- ✓ Outstanding TV picture quality everywhere in the home
- ✓ Transmit RF TVsignals over high-grade twisted pair cabling
- ✓ CableTV (DVB-C) or Terrestrial (DVB-T) feeder networks
- ✓ 85-862MHz Forward Path
- ✓ 5-65MHz Return Path
- ✓ Integrated 1-to-4 splitter and baluns
- ✓ 4x RJ45 Twisted Pair balanced TV or STB home cabling outputs
- ✓ Level measurement & diagnostic circuit
- ✓ Automatic gain control circuit



ABI- EV2008S00

ABI- EV2014S00



These TV-over-Twisted-Pair (TVoTP) radio frequency amplifiers are intended to bring analog and digital TV RF signals in the forward direction and bidirectional interactive digital service signals to TVs or SetTopBoxes over an OmniMedia universal cabling system. The modules are housed in a full-aluminum DIN-rail mountable housings.

ABI-EV2000S00 is a standalone TVoTP amplifier with 4 RJ45 outputs.

ABI-EV2008S00 is a master TVoTP amplifier with 4 RJ45 outputs and 2 coaxial extension ports.

ABI-EV2014S00 is a slave unit of ABI-EV2008S00, used to extend the total capacity of one master unit to 8 or 12 TV ports.

### Input coaxial port:

The unit's coaxial F input port accepts wideband FM, DAB, TV and data signals in the range between 85 and 862MHz coming from either a DVB-T antenna system or from a CableTV network.

The coaxial port sends back interactive return path signals, in the range 5-65MHz, coming from the STBs or the TV sets to the CableTV network.

### Output RJ45 ports:

The combination FM/VHF/UHF is offered on four twisted pair RJ45 connectors that can be connected via a maximum of 35m of OmniMedia cable to RJ45 wall outlets. These ports carry back to the operator's head-end in-band RF type return path signals for interactive digital TV services coming from the digital SetTopBoxes.

### Output coaxial ports (only on ABI-EV2008S00):

These high-level bidirectional ports are intended to connect one or two slave extension TVoTP units ABI-EV2014S00 to a master ABI-EV2008S00 unit, in order to increase the number of TV ports in a system.

The TVoTP-amplifiers are equipped with an internal filter that compensates the cable characteristics of the universal cabling system.

The amplifiers have an automatic gain control circuit to adapt to the variations in input signal level coming from the aerial or CaTV network. Simple diagnostics is offered through a flashing LED which shows proper operation and input signal strength.

To connect the TV set or STB to the OmniMedia HD RJ45 wall outlet, different models of adapter baluns are available.

Specifications are subject to change without notice.

## CHARACTERISTICS

- Forward path & Direct return path Docsis compliant
- Max. Link length: 35m of OmniMedia HD cable

### Input ports:

- 1x CaTV or DVB-T in - F-type female (IEC16-24)
- 1x Power Supply – Phoenix

### Output ports:

- 4x CaTV with return path - RJ45 jack (IEC60603-7)
- *ABI-EV2008S00*: 2x CaTV with return path- F type female (IEC16-24)

### RF Specifications (downstream):

- Freq range CaTV: 85-862MHz
- RF IN: 62...75dB $\mu$ V
- TV1-TV4 OUT: 84+-1dB $\mu$ V@862MHz
- RF flatness: 1.0dB
- Noise figure: <=7dB (@ IN= 62,5dB $\mu$ V)
- Pre-emphasis 85-862MHz: 12dB

### RF Specifications (upstream return path):

- Freq. range: 5-65MHz
- Attenuation: 3dB

### RF specifications (general):

- CSO/CTB: > 60 / 60dBc (42ch, Vout=82dB $\mu$ V@862MHz)
- Return loss, on RF ports: >14dB (85MHz) -1,5dB/oct, min 10dB (>EN50083-3 cat C)

### Impedance

- 75Ohm unbalanced on F-type coax
- 100Ohm balanced on RJ45

### Complies with:

- Safety: EN60065
- EMI: EN50081-1 & EN50082-1
- Immunity test voltage contact discharge 4kV, air discharge 8kV
- RoHS compliance: 2002/95/EC
- WEEE compliance: 2002/96/EC

### Environmental specifications:

- *ABI-EV2000S00*, *ABI-EV2008S00*: Alu housing, 9 DIN positions wide  
WxHxD (mm): 157x80x65  
Net weight: 420g
- *ABI-EV2014S00*: Alu housing, 4 DIN positions wide  
WxHxD (mm): 71,2x80x65  
Net weight: 280g
- Operating temp: -5...+45°C
- Storage temp: -15...+60°C

### Power supply:

- 5VDC – 4W approx. for *ABI-EV2000S00* & *ABI-EV2008S00*
- *ABI-EV2014S00* does not require power

### Complementary adapter baluns:

- *ABI-AC1002S00*: fixed level for link lengths between 15 and 35m
- *ABI-AC1001S00*: variable level for link lengths between 0-35m

## APPLICATION DIAGRAM

