



Broadcast mixer AEV *Synapse*



Synapse is a modular console designed to meet the needs of today's radio stations, offering a wide range of configurations based on a mainframe with 16 slots for input modules ..

General overview:

- All Balanced inputs and outputs
- Modular 16 channel Mixer
- Input modules: Mic-Line, Line-Line, Digital digital and telephone hybrid
- A/B input control
- 100 mm Sliders with Digital VCA control.
- Mic Input with insert I/O and Phantom Supply
- GPIs and GPOs (optional)

- Digital** input (option) with automatic sample rate converter (32, 44.1, 48, 96 KHz)
- Three band tone module to control each analog input module (option)
- Double Hardware interface: consumer optical and professional balanced

- Telephone opto-coupled hybrid with Digital Echo-canceller plug
- Meeting function on telephone hybrid
- 2 independent bus (PGM, UTL) stereo outputs
- 2 independent Analog Stereo Outputs (PGM and UTL)
- 2 Independent **Digital** 32, 44.1, 48, 96 KHz output with selectable sample rate (PGM and UTL).
- Double Hardware interface: consumer optical and professional balanced
- CUE Bus
- Control Room and Studio modules with monitor mode selector
- Control Room and Studio out with mute logic
- DIM functions on headphones and Control Room
- 2 Analog stereo VU meters: PGM (fix) and automatic CUE metering (switched)
- Integrate talk back microphone
- Built-in CUE speaker
- 2 stereo inputs for external sources (AUX)
- Integrated "Control Studio Fader" controls
- Output opto-coupled ON AIR command
- Totally shielded bus
- Golden contact DB connectors for audio and logic I/O



TECHNICAL SPECIFICATIONS

INPUT / OUTPUT SPECIFICATIONS

Mic Inputs

General

Input configuration	Transformer Balanced
Input Impedance	200 Ohm
Sensitivity Level Range	Adjustable from -70 ÷ -40 dBu (Trimmer adj.)
Input Level Range	±12 dBu (Digital adj. step 0,5 dB)
Maximum Input Level	- 30 dBu
Phantom Supply	42 Vdc selectable, with 3k3 c.c. protection
100 mm Fader control	VCA Digital controlled

Insert section:

Insert Output configuration	Unbalanced
Insert Output impedance	100 Ohm
Insert Output level	0 dBu
Insert Input configuration	Unbalanced
Insert Input impedance	10 KOhm
Insert Input level	0 dBu

DJ Controls:

external DJ Slider control	Available
DJ Talk back	Available
In Start / Stop /Cough control	Available
Out Start / Stop Control	Available
Connector	D-Sub 15 Pole Female

Line Inputs

Input configuration	Electronically balanced
Input Impedance	10 K Ohm (600 Ohm wired selectable)
Input Level Range	±12 dBu (Digital adj. step 0,5 dB)
Headroom	+ 18 dBu
100 mm Fader control	VCA Digital controlled
Connector	DSUB 15 pole female

Digital Controls:

In Start / Stop	Available
Out Start / Stop Control	Available

DIGITAL INPUT

Input configuration	AES/EBU, IEC958,S/PDIF & EIAJ CP340/1201 Professional and consumer
Sample Rate	Automatic 32, 44.1, 48, 96 KHz converter
100 mm Fader control	VCA Digital controlled
Connector	DSUB 15 pole female Optical





TELEPHONE HYBRID MODULE

Input configuration	Opto-coupled
Input impedance	600 Ohm Bal
Line Compensation	Automatically (max 5 Km)
Echo canceller	Digital (optional)
Tx Level	0 or + 3 dBu dip switch selectable
Rx Level Range	±12 dBu (Digital adj. step 0,5 dB)
Frequency response	300 Hz ÷ 3400 Hz (-2 dB) without Echocanc 300 Hz ÷ 3400 Hz (-1.5 dB) with Echocanc
Distortion	< 1.5 %
Noise	-60 dB.
Cross-talk	Digitally cancelled

Digital Controls:

In Start / Stop	Available
Out Start / Stop	Available
In Lock/ Meeting	Available
Out Call / Lock	Available

EXTERNAL INPUT

Input configuration	Electronically balanced
Input Impedance	10 K Ohm(600 Ohm wired selectable)
Input Level Range	±12 dBu (Digital adj. step 0,5 dB)
Headroom	+ 18 dBu
Connector	DSUB 9 pole female

ANALOG OUTPUTS

Output configuration	Electronically balanced
Output Impedance	100 Ohm
PGM Output Level Range	-2 ÷ +13 dBu (1 dB step dip switch selectable)
Connector	DSUB 9 pole female
UTL Output Level Range	-2 ÷ +13 dBu (1 dB step dip switch selectable)
Connector	DSUB 9 pole female
C Room Mut.Output LevR	- ÷ +12 dBu
Connector	DSUB 9 pole female
C Room Mut.Output LevR	- ÷ +12 dBu
Connector	DSUB 9 pole female
C Studio no Mut.Output LevR	-2 ÷ +13 dBu (1 dB step dip switch selectable)
Connector	DSUB 9 pole female

DIGITAL OUTPUTS

Output configuration	AES/EBU, IEC958,S/PDIF & EIAJ CP340/1201 Professional and consumer
Sample Rate	Automatic 32, 44.1, 48, 96 KHz converter
Connector	DSUB 15 pole female Optical





HEAD PHONES (C.Room no Muted):

Configuration Type	Stereo unbalanced
Output Impedance	50 Ohm
Connector	JACK 6 mm

Digital Controls:

Tally 1 OUT	Available
Connector	JACK 6 mm

LOGIC INPUT

Configuration	Opto-coupled (with internally 330 Ohm protection)
Typical Voltage input	5 Vdc (for 10 mA input)
Max Reverse Voltage	5 Vdc
Connector	DSUB 15 pole female

LOGIC OUTPUT

Configuration	Optic solid state relay
Max Voltage	50 Vdc/ac
Max Current	100 mA
Connector	DSUB 15 pole female

