

OPERATIONAL DESCRIPTION

1.1. Product description



KEY FEATURES

ES881v2:

- 4 AES/EBU digital stereo inputs with hardware sample rate converters, inserted into 8 EtherSound channels
- 4 AES/EBU digital stereo outputs, extracted from 8 EtherSound channels

ES1241v2:

- 2 AES/EBU digital stereo inputs with hardware sample rate converters, inserted into 4 EtherSound channels
- 6 AES/EBU digital stereo outputs, extracted from 12 EtherSound channels

ES16161v2:

- 8 AES/EBU digital stereo inputs with hardware sample rate converters, inserted into 16 EtherSound channels
- 8 AES/EBU digital stereo outputs, extracted from 16 EtherSound channels

- 1 Word Clock input
- 1 Word Clock output
- 1 RJ45 port for control and management
- 19" 1 RU enclosure
- Remote control and management via 'EScontrol' software
- XLR connectors (ES16161v2: 4 Sub-D 25-pin connectors)

SPECIFICATIONS

Configuration

Size	1U 19" rack : 43.9 x 482.6 x 297.1 mm		
Power supply	 100 - 240 VAC, 47-63 Hz switching-mode, automatic voltage detection WARNING: Do not open the power supply module. It contains hazardous voltages. <i>There are no user-serviceable parts inside</i> 		
Temp / humidity (non-condensing) Operating: Storage:	0°C - 50°C / 0% - 95% -5°C - 70°C / 0% - 95%		
Power consumption at 240 V at 100 V	ES881v2: 0.06 A 0.12 A	ES1241v2: 0.06 A 0.12 A	ES16161v2: 0.07 A 0.14 A
Net weight	~3,1 kg (~6.85 lbs)		

Inputs/outputs

EtherSound ES881v2 EtherSound ES1241v2 EtherSound ES16161v2

Digital audio AES/EBU 3	4 stereo inputs 4 stereo outputs	2 stereo inputs 6 stereo outputs	8 stereo inputs 8 stereo outputs
	With one hw sample rate converter per input, conversion ratio 1:3 to 3:1, up to 96 kHz		
Impedance	110 Ω		
Sampling frequencies available	48 kHz or 44.1 kHz		
Frequency response at 44.1 kHz at 48 kHz	10 Hz-21 kHz +/- 0,1 dB 10 Hz-23 kHz +/- 0,1 dB		

Connectivity

EtherSound ES881v2 EtherSound ES1241v2 EtherSound ES16161v2

Digital audio	4 female XLR-3 and 4 male XLR-3	2 female XLR-3 and 6 male XLR-3	4 female Sub-D 25
EtherSound	2 female EtherCon RJ45 compatible (connections "IN"/"OUT")		
Control	1 RJ45		
GPIO	4 optocoupled inputs and 4 relay outputs on 8-point terminal blocks		
Serial ports	1 RS232 on DB9		

Synchronization

Clock source	If 'Clock Source' in an EtherSound network: Internal, Word Clock or on 'AES IN 1' input If not 'Clock Source': EtherSound network, Word Clock or on 'AES IN 1' input (synchronized on the 'Clock Source' clock)
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1.2. Related Submittal(s) / Grant(s)

All host equipment used in the test configuration are FCC granted, when relevant.

1.3. Tested System Details

The FCC IDs for all equipment, plus description of all cables used in the tested system are:

Trade Mark – Model Number (Serial number)	FCC ID	Description	Cable description
ES881v2 * (sn : 2316.00020001)	IGTES8AESV2	Ethernet audio bridge	AC power and GPIO: unshielded Audio and other I/O: shielded EtherSound / Ethernet: shielded
ES1241v2 * (sn : 2349.00020001)	IGTES8AESV2	Ethernet audio bridge	AC power and GPIO: unshielded Audio and other I/O: shielded EtherSound / Ethernet: shielded
ES16161v2 * (sn : 2350.00020001)	IGTES8AESV2	Ethernet audio bridge	AC power and GPIO: unshielded Audio and other I/O: shielded EtherSound / Ethernet: shielded
ES8 MIC (sn : 165.00000012) XLR	IGTES8MIC	Ethernet audio bridge	AC power and GPIO: unshielded Audio: shielded EtherSound: shielded
ES8 OUT XLR (sn : 165.00000012) XLR	IGTES8	Ethernet audio bridge	AC power and GPIO: unshielded Audio: shielded EtherSound: shielded
DELL – LATITUDE CS-SERIES M/N: PMP (sn: 200118P209)	DoC	Laptop PC	Power cables: unshielded Ethernet cable: shielded
DIGIGRAM - Audio Load Box (sn: none)	none	I/O Load box	Earth wire (1.5m)

*: Equipment under test.

1.4. Test Methodology

Both conducted and radiated testing were performed according to the procedures in ANSI C63.4-2003, FCC Part 15 Subpart B.

Radiated testing was performed at an antenna to EUT distance of 10 meters. During testing, all equipment's and cables were moved relative to each other in order to identify the worst case set-up.

1.5. Test facility

Tests have been performed on January 15th and 16th, 2007.

This test facility has been fully described in a report and accepted by FCC as compliant with the radiated and AC line conducted test site criteria in ANSI C63.4-2003 in a letter dated July 14, 2005 (registration number 94821).

This test facility has also been accredited by COFRAC (French accreditation authority for European Union test lab accreditation organization) according to NF EN ISO/IEC 17025, accreditation number 1-1633 as compliant with test site criteria and competence in 47 CFR Part 15/ANSI C63.4 and EN55022/CISPR22 norms for 89/336/EEC European EMC Directive application. All pertinent data for this test facility remains unchanged.