

OPERATIONAL DESCRIPTION

1.1. Product description of EtherSound ES8 in & ES8 OUT

EtherSound ES881, ES1241 and ES16161 are Digigram products incorporating the EtherSound technology. They allow insert or extract digital audio channels from an EtherSound network using standard Ethernet components (cables CAT5 and switches).

ES transforms digital audio signals into EtherSound channels and EtherSound channels in digital audio signals

See §1.6 for more detail.

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
DIGIGRAM ES16161* (sn: 283.00000001)	IGTES8AES	Audio card	I/O cables, shielded Standard power cable unshielded,
DIGIGRAM ES1241* (sn: 28200000001)	IGTES8AES	Audio card	I/O cable, shielded Standard power cable unshielded,
Ethersound ES8IN (sn: 14900000120)	IGTES8	Audio card	Standard power cable unshielded, LAN cable is shielded.
Ethersound ES8OUT (sn: 15000000173)	IGTES8	Audio card	Standard power cable unshielded, LAN cable is shielded.
DIGIGRAM	None	Load box	Standard power cable unshielded

* : Equipment under test

1.4. Test Methodology

Both conducted and radiated testing was performed according to the procedures in ANSI C63.4-2000, CISPR22-2003 and EN55022:1998+/A1:2000+/A2:2003.

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 September 19th, 2005.

The test facility used to collect the radiated and conducted data is the **LCIE** (Etablissement Voiron) facility, located ZI des Blanchisseries, 38500 VOIRON, France. 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 C63.4-1992 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.

1.6. Data sheets

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. There are no user-serviceable parts inside
Temp / humidity (non-condensing)	0 °C - 50 °C / 0% - 95%
Operating: Storage:	-5 °C - 70 °C / 0% - 95%
Power consumption	ES881/ES1241/ES16161 : 0.23 A at 100 V, 0.125 A at 240 V
Net weight	~3,1 kg (~6.85 lbs)

Entrées/sorties

	EtherSound ES881	EtherSound ES1241	EtherSound ES16161
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	110 Ω	110 Ω
Sampling frequencies available	48 kHz or 44.1 kHz		

Connectivity

	EtherSound ES881	EtherSound ES1241	EtherSound ES16161
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")		
GPIO	4 optocoupled inputs and 4 relay outputs on 8-point terminal blocks		
Serial ports	1 RS232 on DB9		

Synchronization

Clock source	If 'Primary Master' in an EtherSound network: Internal, Word Clock or on 'AES IN 1' input If not 'Primary Master': EtherSound network, Word Clock or on 'AES IN 1' input (synchronized on the 'Primary Master' clock)
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