



EMC TEST REPORT

EU EMC -DIRECTIVE 2004/108/EC-

PROJECT NO.: 8607632

Registration NO.: VT09057185

EN 55022:2006+A1:2007 EN 61000-6-1:2001, EN 61000-6-3:2001
EN 55024:1998+A1:2000+A2:2003, EN 61000-4-2/-3

ZHEJIANG NEW-EPOCH COMMUNICATION FACILITY CO., LTD.

PATCH PANEL

Date of Report: 2009-05-13

VOV Certification & Testing Laboratory Limited

TESTING LABORATORY

Location

VOV CERTIFICATION & TESTING LABORATORY LIMITED
 Web: www.vov.org.uk E-mail: vov@vov.org.uk

Details of applicant

Name : ZHEJIANG NEW-EPOCH COMMUNICATION FACILITY CO., LTD.
 ADD : WENGYANG INDUSTRIAL ZONE, YUEQING CITY, ZHEJIANG,
 P.R.CHINA

Details of manufacturer

Name : ZHEJIANG NEW-EPOCH COMMUNICATION FACILITY CO., LTD.
 ADD : WENGYANG INDUSTRIAL ZONE, YUEQING CITY, ZHEJIANG,
 P.R.CHINA

Test item

Description of t item : PATCH PANEL
 Type identification : GJ-47, GJ-19, GJ-38, GJ-34, GJ-21S, GJ-21
 GJ-42, GJ-28, GJ-28S, GJ-16

Test Standards

EN 55022:2006+A1:2007
 EN 61000-6-1:2001, EN 61000-6-3:2001
 EN 55024:1998+A1:2000+A2:2003, EN 61000-4-2/-3

ADDIT INFORMATION:

Description of Test	Standard No.	EN 55022:2006+A1:2007 EN 61000-6-1:2001, EN 61000-6-3:2001 EN 55024:1998+A1:2000+A2:2003, EN 61000-4-2/-3
Test Engineer by	Gaither	Signature 
Reviewer by	Randy Tan	Signature 
 VOV CERTIFICATION & TESTING LABORATORY LIMITED		

EN 55022:2006+A1:2007, EN 61000-6-1:2001, EN 61000-6-3:2001
 EN 55024:1998+A1:2000+A2:2003, EN 61000-4-2/-3

Test item particulars -- PATCH PANEL

Possible test case verdicts:

- Test case does not apply to the test object : N(.A.)
- Test object does meet the requirement : P(Pass)
- Test object does not meet the requirement : F(Fail)

Testing Date

Date of receipt of test item : 2009-04-24
Date(s) of performance of tests : 2009-04-24~2009-05-13

General remarks:

The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the issuing testing laboratory.

Test product information:

Type identification : GJ-47
Specification : /

Test Result:

Pass

FOR FURTHER DETAILS, PLEASE REFER TO THE FOLLOWING PAGES

Electro - Magnetic Compatibility

Test - Result

 1st test test after modification production test

Test Emission / Immunity			Done	Test passed	Test failed
Emission	Conducted Emission	EN55022	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Emission	Radio Noise Field Strength	EN55022	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Emission	Line Conducted Emission	EN55022	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Harmonics	Current Harmonics	EN61000-3-2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Flicker	Voltage Fluctuations	EN61000-3-3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Immunity	Immunity requirements	EN55024	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ESD	Electrostatic Discharge	EN61000-4-2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
RF-Field	Radiated Immunity	EN61000-4-3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Burst	Electrical Fast Transients	EN61000-4-4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Surge	Transients comm.&diff.mode	EN61000-4-5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
RF-com.mode	RF continues conducted	EN61000-4-6	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Magn.-Field	Magn.-Field Immunity	EN61000-4-8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
V-dips	Voltage dips and Interruption	EN61000-4-11	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Comment : The equipment under t was a sample device without active electronic elements (IC's)

Remarks : Please take running production control
vov can carry out running production test for you.

EN 55022:2006+A1:2007, EN 61000-6-1:2001, EN 61000-6-3:2001
EN 55024:1998+A1:2000+A2:2003, EN 61000-4-2/-3

Test equipment utilized

No.	Test equipment	Type	Manufacturer
V0001	Test receiver	ESHS 10	Rohde & Schwarz
V0002	Test receiver	ESVP	Rohde & Schwarz
V0003	Test receiver	ESVS 10	Rohde & Schwarz
V0004	Spectrum and network analyzer	FSMS 26	Rohde & Schwarz
V0005	Test receiver	SMV 11	MEB
V0006	Test receiver system	SME 12	MEB
V0008	Antenna	Loop antenna	Siemens
V0009	Antenna	ARA 2	MEB
V0010	Antenna	Loop antenna	MEB
V0011	Antenna	Van Veen / Frame	Rohde & Schwarz
V0012	Antenna	HK 116	Rohde & Schwarz
V0013	Antenna	HL 223	Rohde & Schwarz
V0014	Antenna	HL 025	Rohde & Schwarz
V0015	Antenna	HL 025	Rohde & Schwarz
V0016	Precision antenna kit	VHAP	Schwarzbeck
V0017	Precision antenna kit	UHAP	Schwarzbeck
V0020	Antenna	DP21	MEB
V0021	Antenna	DP3	MEB
V0022	Antenna	SAS-200/521	A.H.System+D65
V0023	Antenna	DP1	MEB
V0024	Antenna mast	AF2	MEB
V0025	Antenna mast	AF2	MEB
V0026	Tripod		Heinrich Deisel
V0027	Tripod		Heinrich Deisel
V0028	Tripod	STA 2	C.Lorenz AG

EN 55022:2006+A1:2007, EN 61000-6-1:2001, EN 61000-6-3:2001
 EN 55024:1998+A1:2000+A2:2003, EN 61000-4-2/-3

V0029	Tripod		Berlebach
V0031	Turn table	DS412	Heinrich Deisel
V0032	Controller	HD 050	Heinrich Deisel
V0033	RF generator	SMG	Rohde & Schwarz
V0034	RF generator / Amplifier	SMLR	Rohde & Schwarz
V0035	RF generator / Amplifier	SMLM	Rohde & Schwarz
V0038	RF amplifier	150 L	Amplifier Research
V0039	Absorbing clamp	MDS 21	Rohde & Schwarz
V0040	Artificial mains	ESH3-25	Rohde & Schwarz
V0041	Artificial mains	ESH3-24	Rohde & Schwarz
V0042	Artificial mains	ESH3-26	Rohde & Schwarz
V0044	Artificial mains	NNB 111	MEB
V0045	Stripe line	IEC 801-3	VOV
V0046	Power supply	LTS 006	RFT
V0047	Power supply	TG 20/1	Station
V0048	Power supply	TG 20/1	Station
V0049	Power supply	T 102	TPW
V0050	Power supply	T 101b	TPW
V0051	Oscilloscope	TDS 640A	Tektronix
V0052	Audio analyzer	UPA 4	Rohde & Schwarz
V0053	ECAT Control centre	CE40	Keytek / EMV
V0054	EFT simulator	4412	Keytek / EMV
V0055	Module network coupler	E4551	Keytek / EMV
V0056	Blank plug-in		Keytek / EMV
V0057	Module SURGE with DC coupler	E 501	Keytek / EMV
V0058	Capacitive coupling clamp	E 502B	Keytek / EMV
V0059	Kikusui amplifier	PCR 2000L	Keytek / EMV

EN 55022:2006+A1:2007, EN 61000-6-1:2001, EN 61000-6-3:2001
EN 55024:1998+A1:2000+A2:2003, EN 61000-4-2/-3

V0060	Xitron power analyzer		Keytek / EMV
V0061	Power/ Arb (Harm., Ramp)		Keytek / EMV
V0062	Reference impedance		Keytek / EMV
V0063	Blank plug-in		Keytek / EMV
V0064	CDN IEC 1000-4-6		Keytek / EMV
V0065	ESD-generator minizap		Keytek / EMV
V0066	EM Injection Clamp		FCC / EMV
V0067	Calibration Fixture	IEC 801-2031 CF	FCC / EMV
V0068	CDN IEC 1000-4-6	CDN	FCC / EMV
V0069	EM Radiation Monitor	EMR - 20	Wandel & Goltermann
V0070	PC Transfer set EMR-20	EMR - 20	Wandel & Goltermann
V0071	Video camera system	KMB012	Kocom
V0072	Interphone system	JS-1400	Jiuh Sheng
V0073	Audio noise meter	GSM 2	MKD/RFT
V0074	RF Millivoltmeter	QRV 2	MKD/RFT
V0075	NF generator	GF 22	Pracitronic
V0076	Feeding bridge A	SBA 1000	ESP
V0077	Audio / Video Filter set	AV 55020	VOV
V0078	LCR meter	SR 720	SRS
V0079	Functional generator	MX-2020	Maxcom
V0080	EMI Software	ES-K1	Rohde & Schwarz
V0081	EMI Software	ES-K10	Rohde & Schwarz
V0082	PC Novell network system	Novell	Esotronic
V0083	Apple computer system	Performa 630	Macintosh
V0084	Process controller	PSA 15	Rohde & Schwarz
V0085	Shielded room	SR 1	Frankonia
V0086	Anechoic chamber	AC 1	Frankonia

EN 55022:2006+A1:2007, EN 61000-6-1:2001, EN 61000-6-3:2001
 EN 55024:1998+A1:2000+A2:2003, EN 61000-4-2/-3

V0087	Climatic cell	HC 4033	Heraeus
V0088	Color TV pattern generator	FM 5518-TX VPS	Philips
V0089	Radio communication ter	CMS 54	Rohde & Schwarz
V0090	DECT type approval CTR06	TS 8930	Rohde & Schwarz
V0091	RF signal generator	SME 03	Rohde & Schwarz
V0092	DM-Coder	SME-B11	Rohde & Schwarz
V0093	Pulse Modulator	SM-B8	Rohde & Schwarz
V0095	DECT system controller	PSMD	Rohde & Schwarz
V0096	DECT signaling unit	PSMD-B11	Rohde & Schwarz
V0097	Rack, 19", 36 HU	TS 89RA	Rohde & Schwarz
V0098	System engineering and software	CS 893BE	Rohde & Schwarz
V0099	Extension unit for basic version	TS 8930B	Rohde & Schwarz
V0100	RF signal generator	SME-06	Rohde & Schwarz
V0101	DM-Coder	SME-B11	Rohde & Schwarz
V0102	Pulse modulator	SM-B8	Rohde & Schwarz
V0103	Pulse generator	SM-B4	Rohde & Schwarz
V0105	High power synthesizer/sweeper	SMP 22/02	Rohde & Schwarz
V0106	Frequency extension	SMP-B11	Rohde & Schwarz
V0107	RF attenuator for SMP 22	SMP-B15	Rohde & Schwarz
V0108	DECT protocol ter TBR 22	TS 1220	Rohde & Schwarz
V0109	Process controller	PSM 2	Rohde & Schwarz
V0110	Real time signaling unit	PSMD-B2	Rohde & Schwarz
V0111	PCM Real-time audio interface for PSM	PSMD-B3	Rohde & Schwarz
V0112	Synthesizer Module	PSMD-B4	Rohde & Schwarz
V0113	Keyboard	PSA-Z2	Rohde & Schwarz
V0114	RF step attenuator	RSG	Rohde & Schwarz
V0115	Glide path		Rohde & Schwarz

EN 55022:2006+A1:2007, EN 61000-6-1:2001, EN 61000-6-3:2001
 EN 55024:1998+A1:2000+A2:2003, EN 61000-4-2/-3

V0116	RF Millivoltmeter		URV 55	Rohde & Schwarz
V0117	Insertion unit		URV-Z2	Rohde & Schwarz
V0118	Mixer		MFC 1000	Avcom
V0119	Mixer		MFC 2000	Avcom
V0120	RF step attenuator		TRI-50-20	INCO
V0121	Oscilloscope		EO 147A	Serute
V0122	Oscilloscope		5201	Dagatron
V0123	RF step attenuator		RBU	Rohde & Schwarz
V0124	Tripod		STA2	Rohde & Schwarz
V0126	Uninterruptable supply	power	UPS-1500	Sendon
V0127	Uninterruptable supply	power	UPS-1000LC	Sendon
V0128	Uninterruptable supply	power	UPS-1000	Sendon
V0129	Uninterruptable supply	power	UPS-500	Sendon
V0130	Uninterruptable supply	power	Power saver	Sendon
V0131	Telephone connection box			Systel
V0132	Frequency doubler		TR-0616	EMG
V0133	Probe body		P6015	Tektronix
V0134	Mains filter		MSF	Erika Fiedler
V0135	Measuring switching point		AK 11	RFT
V0136	Attenuator		33-6-34	Weinschel
V0137	Multimeter		YX-360TRA	Mastech
V0138	Multimeter		DT-9410	Diditec
V0139	Multimeter		ST-9202	Standard
V0140	High voltage generator		IP 6Wa	TPW
V0141	Sliding bridge		J 573	RFT
V0142	Impedance converter		TK 11	RFT
V0143	Impedance converter		TK 12	RFT
V0146	Active RF probe		ESH2-Z2	Rohde & Schwarz
V0147	Probe		TK 103	MEB
V0148	T TV		21PT4301/00	Philips
V0149	Power divider		ZAPD-21	MCL

EN 55022:2006+A1:2007, EN 61000-6-1:2001, EN 61000-6-3:2001
 EN 55024:1998+A1:2000+A2:2003, EN 61000-4-2/-3

V0150	Switcher		HR07-720	Wisi
V0151	Interference generator	pulse	NSG 500C	Schaffner
V0152	Simulator Load-Dump-Impulse	for	NSG 506C(I)	Schaffner
V0153	Simulator Load-Dump-Impulse	for	NSG 506C(II)	Schaffner
V0154	Signal generator		SMG	Rohde & Schwarz
V0155	Signal generator		SMG	Rohde & Schwarz
V0156	Adjacent channel power meter		NKS	Rohde & Schwarz
V0157	TV and Sat-Signal generator		VTG 700	Grundig
V0158	TV and Sat-Signal generator		VTG 700	Grundig
V0159	Programmable power supply		TOE 8815	Toellner
V0160	Protective wire and isolation ter		PI 6001D	SPS electronic
V0161	Filter system / consumer electronic			Fiedler
V0162	Acoustic chamber		403-A	IAC
V0163	Test head		BK 4602	Bruel & Kjar
V0164	Simulator ear		BK 4185	Bruel & Kjar
V0165	Simulator mouth		BK 4227	Bruel & Kjar
V0166	Acoustic calibrator		BK 4231	Bruel & Kjar
V0167	Communication Analysis System		CAS TEL	HEAD acoustics
V0168	Acoustical t for DECT		CTR 10	HEAD acoustics
V0169	Measurement Front-end(analog)	-	MFE III	HEAD acoustics
V0170	Measurement Front-end(digital)	-	MFE IV	HEAD acoustics
V0171	Electronic t cradle		THE	HEAD acoustics
V0172	Noise generator		HNG III.1	HEAD acoustics
V0173	Speaker		Canton S Pluss	HEAD acoustics
V0174	Measurement - Front - end line interface		MFE V	HEAD acoustics
V0175	Software interface(analogue)	Line	COPTZV 5	HEAD acoustics
V0176	Acoustic voltmeter		COP 4	HEAD acoustics
V0177	Feeding bridge B		SBB 1000	ESP
V0178	Open area t side		10m	VOV
V0180	Artificial mains		NNB01 / RFZ	RFZ
V0181	T pin for protective wire		FE 156-1	SPS electronic

EN 55022:2006+A1:2007, EN 61000-6-1:2001, EN 61000-6-3:2001
EN 55024:1998+A1:2000+A2:2003, EN 61000-4-2/-3

V0182	Power supply	MX-9300	Maxcom
V0183	Frequency counter	MX-9300	Maxcom
V0184	Function generator	MX-9300	Maxcom
V0185	Digital multimeter	MX-9300	Maxcom
V0186	Power supply	DF 1730	WJG
V0187	Power supply		TPW / RFT
V0189	Spectrum Analyzer	FSEB	Rohde & Schwarz
V0190	Function generator	MX 2020	Maxcom
V0191	Sweep function generator	7202	Dagatron
V0192	Audio generator	7101	Dagatron
V0193	Vibration table	N1-201-M	Sandox
V0194	Digital multimeter	PMM 208	Dagatron
V0195	Thermo hygro recorder		Amarelle
V0196	Digital thermometer	AK-688	KD
V0197	Digital thermometer		Prima
V0198	Digital thermometer	ad 170th	Ama-digit
V0199	Digital thermometer	ad 31th	Ama-digit
V0200	Digital thermometer/hygrometer	ad 90th	Ama-digit
V0201	Digital thermometer/hygrometer	37950-10	Cole Parmer
V0202	Digital thermometer	ad 15th	Ama-digit
V0203	Digital thermometer	Type K	Amarelle
V0204	Digital thermometer	ad 20th	Ama-digit
V0205	High voltage t generator	HA 3300D	SPS electronic
V0206	High voltage t accessories	HVGZ 312	SPS electronic
V0207	Socket-Outlet torque balance	F 37.13	PTL
V0208	Unjointed Finger probe	P 10.05	PTL
V0209	Flexible Finger probe	P 10.10	PTL
V0210	Spring operated impact hammer	P 22.50	PTL
V0211	Metallic ball	F 53.32	PTL
V0212	Hazardous live probe	P 10.06	PTL
V0213	Hazardous live probe	P 10.11	PTL
V0214	Ball pressure t apparatus	T 10.02	PTL
V0215	Glow wire t apparatus	T 03.14	PTL

EN 55022:2006+A1:2007, EN 61000-6-1:2001, EN 61000-6-3:2001
EN 55024:1998+A1:2000+A2:2003, EN 61000-4-2/-3

V0216	Glow Wire ter	F 10.31	PTL
V0217	Force indicator 50N	URV 55	Rohde & Schwarz
V0218	RF probe	URV5-27	Rohde & Schwarz
V0219	Power sensor	NRV-22	Rohde & Schwarz
V0220	Insertion unit	URV5-24	Rohde & Schwarz
V0221	ISDN-S0-Analyser	K1403	Siemens
V0222	ISDN Protocol Analyser	TE965	Tekelec Teleco.
V0223	GSM/PCN/PCS-Simul.	TS8915B	Rohde & Schwarz
V0224	GSM System Simulator	FTA	Rohde & Schwarz
V0225	SIM Simulator		Orga
V0226	SIM Editor		Orga
V0227	Vibration table	TIRA vib	GenRad
V0228	Climatic chamber	VT 4010	Votsch
V0229	Radio Commun. Ter	CMT 54	Rohde & Schwarz
V0230	Radio Commun. Ter	CMD 65	Rohde & Schwarz
V0231	Treceiver	ESVS 30	Rohde & Schwarz
V0232	Radiation t source	VSQ 1	MEB
V0233	Radiation t source	RK 100	MEB
V0234	Power meter	NRVD	Rohde & Schwarz
V0235	RF-network-analyser	8752 C	Hewlett Packard
V0236	RF-amplifier	100A 100	Amplifier Research
V0237	RF-amplifier	100W 1000W1	Amplifier Research
V0238	Field strong meter	FM 2000	Amplifier Research
V0239	Isotr. field proble 40 GHz	FP 2080 Kit	Amplifier Research
V0240	Isotr. field proble 1 GHz	FP 2000 Kit	Amplifier Research
V0241	Pulse Generator	4050	PicoSecond PL
V0242	Harmonics analyzer	F 41B	Fluke
V0243	AC-clamp 1000A	80i 1000s	Fluke
V0244	Burst generator	EFT 200	EM-T
V0245	Load dump generator	LD 200	EM-T
V0246	Voltage drop simulator	VDS 200	EM-T
V0247	Microsecond generator	MPG 200	EM-T
V0248	Switch unit	AN 200	EM-T
V0249	Coupling network	CAN 200	EM-T
V0250	Coupling clamp	ACC	EM-T

EN 55022:2006+A1:2007, EN 61000-6-1:2001, EN 61000-6-3:2001
 EN 55024:1998+A1:2000+A2:2003, EN 61000-4-2/-3

V0216	Glow Wire ter	P 10.31	PTL
V0217	Force indicator 50N	URV 55	Rohde & Schwarz
V0218	RF probe	URV5-27	Rohde & Schwarz
V0219	Power sensor	NRV-22	Rohde & Schwarz
V0220	Insertion unit	URV5-24	Rohde & Schwarz
V0221	ISDN-S0-Analyzer	K1403	Siemens
V0222	ISDN Protocol Analyser	TE965	Tekelec Teleco.
V0223	GSM/PCN/PCS-Simul.	TS8915B	Rohde & Schwarz
V0224	GSM System Simulator	FTA	Rohde & Schwarz
V0225	SIM Simulator		Orga
V0226	SIM Editor		Orga
V0227	Vibration table	TIRA vib	GenRad
V0228	Climatic chamber	VT 4010	Votsch
V0229	Radio Commun. Ter	CMT 54	Rohde & Schwarz
V0230	Radio Commun. Ter	CMD 65	Rohde & Schwarz
V0231	Treceiver	ESVS 30	Rohde & Schwarz
V0232	Radiation t source	VSQ 1	MEB
V0233	Radiation t source	RK 100	MEB
V0234	Power meter	NRVD	Rohde & Schwarz
V0235	RF-network-analyser	8752 C	Hewlett Packard
V0236	RF-amplifier	100A 100	Amplifier Research
V0237	RF-amplifier	100W 1000W1	Amplifier Research
V0238	Field strong meter	FM 2000	Amplifier Research
V0239	Isotr. field proble 40 GHz	FP 2080 Kit	Amplifier Research
V0240	Isotr. field proble 1 GHz	FP 2000 Kit	Amplifier Research
V0241	Pulse Generator	4050	PicoSecond PL
V0242	Harmonics analyzer	F 41B	Fluke
V0243	AC-clamp 1000A	801 1000s	Fluke
V0244	Burst generator	EPT 200	EM-T
V0245	Load dump generator	LD 200	EM-T
V0246	Voltage drop simulator	VDS 200	EM-T
V0247	Microsecond generator	MPG 200	EM-T
V0248	Switch unit	AN 200	EM-T
V0249	Coupling network	CAN 200	EM-T
V0250	Coupling clamp	ACC	EM-T

EN 55022:2006+A1:2007, EN 61000-6-1:2001, EN 61000-6-3:2001

EN 55024:1998+A1:2000+A2:2003, EN 61000-4-2/-3

V0252	System controller	PSM 12	Rohde & Schwarz
V0253	Spectrum analyzer	FSIQ	Rohde & Schwarz
V0254	RF generator	SMIQ 03	Rohde & Schwarz
V0255	RF generator	SMIQ 03	Rohde & Schwarz
V0256	RF generator	SMP03	Rohde & Schwarz
V0257	Step attenuator	RSP	Rohde & Schwarz
V0258	Rubidium standard	RSTU	DATUM GmbH
V0259	Power meter	NRVD	Rohde & Schwarz
V0260	Power sensor	NRVD-Z1	Rohde & Schwarz
V0261	Power sensor	NRVC-Z1	Rohde & Schwarz
V0262	Switching unit	SSCU	Rohde & Schwarz
V0263	Signaling unit		Wird
V0264	Spectrum analyzer	F1048	HAMEG
V0265	Loop antenna	HFRA9150	Schwarzbeck
V0267	RF signal generator	SMT 03	Rohde & Schwarz
V0268	RF signal generator	SMP 02	Rohde & Schwarz
V0270	RF signal generator	SMP 04	Rohde & Schwarz
V0271	T receive	ESI 40	Rohde & Schwarz
V0272	RF signal generator	SME 03	Rohde & Schwarz
V0273	RF signal generator	SME 03	Rohde & Schwarz
V0274	RF signal generator	SMY 01	Rohde & Schwarz
V0275	Power sensor	NRV-Z51	Rohde & Schwarz
V0276	Audio analyzer	UPL	Rohde & Schwarz
V0277	Power sensor	NRV-Z1	Rohde & Schwarz
V0278	Power sensor	NRV-Z31	Rohde & Schwarz
V0279	Step attenuator	RSP	Rohde & Schwarz
V0280	Power meter	NRVD	Rohde & Schwarz
V0281	Spectrum analyzer	FSM	Hewlett Packard
V0282	RF bridge	86207 A	Hewlett Packard
V0283	RF bridge	86205 A	Hewlett Packard
V0284	Field probe	11940 A	Hewlett Packard
V0285	Field probe	11941 A	Hewlett Packard
V0286	Limiter	11867 A	Hewlett Packard
V0287	T receiver	ESHS 10	Rohde & Schwarz
V0288	Artificial mains	ESH2-25	Rohde & Schwarz

EN 55022:2006+A1:2007, EN 61000-6-1:2001, EN 61000-6-3:2001
 EN 55024:1998+A1:2000+A2:2003, EN 61000-4-2/-3

V0289	Audio generator	TAG 101	Troneer
V0290	Audio generator	TAG 101	Troneer
V0291	Loop antenna	HFH2-22	Rohde & Schwarz
V0292	RF generator	SMHU	Rohde & Schwarz
V0293	Artificial mains	NNBM 8125	Schwarzbeck
V0294	Biconical antenna	HK 116	Rohde & Schwarz
V0295	LPD antenna	HL 223	Rohde & Schwarz
V0296	Oscilloscope	TDS 520 A	Tektronix
V0297	Power pulse generator	IGUF 2910	Schwarzbeck
V0298	ICO ter	TS 1232	Rohde & Schwarz
V0299	DECT protocol ter	TS 1220	Rohde & Schwarz
V0300	RF amplifier	75 A 250	Amplifier Research
V0301	Relay switch unit	RSU	Rohde & Schwarz
V0302	Data line CDN	CM-I/O CD	Keytek
V0303	Telecom line CDN	CM TEL CD	Keytek
V0304	T receive	ESHS 10	Rohde & Schwarz
V0305	T receive	ESVS 10	Rohde & Schwarz
V0306	Function generator	HP 33120A	Hewlett Packard
V0307	Commu. Sign. Analyzer	CSA 803 A	Tektronix
V0308	Spectrum analyzer	R3361 A	Advant
V0309	Anechoic chamber	AC 2	Frankonia
V0310	Anechoic chamber	AC 3	Frankonia
V0311	Anechoic chamber	AC 4	Frankonia
V0312	Climatic chamber	VC 0033	Votsch
V0313	Power sensor	NRV-Z51	Rohde & Schwarz
V0314	LPD antenna	HL 223	Rohde & Schwarz
V0315	Biconical antenna	HK 116	Rohde & Schwarz
V0316	Switcher	Hr 07-720	WISI
V0317	Switcher	Hr 07-720	WISI
V0318	Dial pulse/ DTMF ter	210	HE
V0319	Opto link	GP1B 140	NI
V0320	Opto link	GP1B 140	NI
V0321	RF Millivoltmeter	URV 55	Rohde & Schwarz
V0322	Insertion unit	URV5-24	Rohde & Schwarz
V0323	DECT portable part	Gigaset 1000	SIEMENS

V0324	DECT fix part	Gigaset 1000	SIEMENS
V0325	DECT portable part		Philipps
V0326	DECT fix part		Philipps
V0327	Blue Unit	V 2.0	Nokia
V0328	BT Protocol ter	PTW 60	Rohde & Schwarz
V0330	Spectru analyzer	FSM	Rohde & Schwarz
V0333	Turn table	DE 350	Heinrich Deisel
V0334	Controller	HD 100	Heinrich Deisel
V0335	BT Development kit	CASIRA	CSR
V0336	LPD Antenna	HL 223	Rohde & Schwarz
V0337	Professional Amplifier	Power SE-1200	Wharfedale Pro
V0338	Coupling network	KN002	VOV
V0339	Isolating Transformer	KN003	VOV
V0340	Thermometer		Proficell
V0341	Thermometer		Proficell
V0342	Thermometer		Proficell
V0343	Thermometer		Proficell
V0344	Thermometer		Proficell
V0345	Thermometer		Proficell
V0346	Thermometer		Proficell
V0347	Current Probe	EZ-17	R & S
V0348	RF Millivoltmeter	URV 55	R & S
V0349	Insertion unit	URV5-24	R & S
V0350	Horn Antenna	BBHA 9120-C	Schwarzbeck
V0351	RF amplifier	DWT-1857	Microwave
V0354	RF amplifier	DBS-0408N423	Microwave
V0355	High pass	H03G12G3	Microwave
V0356	High pass	H03G12G3	Microwave
V0357	High pass	H08G18G3	Microwave
V0358	RF amplifier	AFD3-010040-15-In	MITEQ
V0359	RF amplifier	M/N AM-1331	MITEQ
V0360	RF amplifier	DBS-0408N423	Microwave
V0361	RF amplifier	DBS-1826N423	Microwave
V0362	High pass	H03G12G3	Microwave
V0363	High pass	H08G18G3	Microwave

V0364	High pass	H03G12G3	Microwave
V0365	Notch filter 2.4 GHz	BN86883	Wain Wright
V0366	High pass	BN86882	Microwave
V0367	High pass	BN86880	Microwave
V0368	Notch filter 0.5-1 GHz	BN86881	Schomandl
V0369	Notch filter 210-500 MHz	BN86882	Schomandl
V0370	Notch filter 15-90 MHz	BN86880	Schomandl
V0371	Notch filter 85-250 MHz	BN86881	Schomandl
V0372	Direction coupler	RK 100	MEB
V0373	Direction coupler	DC3001	emv
V0374	Insertion Unit	URV 5-22	R & S
V0375	RCo Network	8 Ohm	Erika Fiedler
V0376	RCo Network	300 Ohm	Erika Fiedler
V0377	RCo Network	10K Ohm	Erika Fiedler
V0378	RCo Network	10K Ohm	Erika Fiedler
V0379	Terminating resistor	150 Ohm	Erika Fiedler
V0380	Terminating resistor	150 Ohm	Erika Fiedler
V0381	RCi Network	100 Ohm	Erika Fiedler
V0382	RCi Network	2.2 K Ohm	Erika Fiedler
V0383	RCi Network	1K Ohm	Erika Fiedler
V0384	RCi Network	22K Ohm	Erika Fiedler
V0385	RCi Network	22K Ohm	Erika Fiedler
V0386	Bandpass 0.5-3kHz	Nach EN55020-D.2	
V0387	Tiefpass 15 kHz	Nach EN55020-D.1	
V0388	Tiefpass 15 kHz	Nach EN55020-D.1	
V0389	Bandpass 0.5-3kHz	Nach EN55020-D.2	
V0390	Netz filter	Mains Filter 'M'	Erika Fiedler
V0391	Bewertungsnetzwerk	Nach EN55020-B.3	
V0392	Matching Network	MN 50-150Ohm	Erika Fiedler
V0393	Matching Network	MN 50-150Ohm	Erika Fiedler
V0394	RCo Network	Loudspeaker Load&Ohm	Erika Fiedler
V0395	RCo Network	Loudspeaker Load&Ohm	Erika Fiedler
V0396	RCo Network	Loudspeaker Load&Ohm	Erika Fiedler
V0397	RCo Network	Phone Load 300 Ohm	Erika Fiedler

V0398	RCo Network	Phone Load 300 Ohm	Erika Fiedler
V0399	RCo Network	Phone Load 300 Ohm	Erika Fiedler
V0400	RCo Network	Audio Adapter	Erika Fiedler
V0401	RCo Network	Audio Adapter	Erika Fiedler
V0402	Coupling Unit	SR (47K Ohm)	Erika Fiedler
V0403	Coupling Unit	SR (47K Ohm)	Erika Fiedler
V0404	Coupling Unit	SR (47K Ohm)	Erika Fiedler
V0405	Coupling Unit	SR (2.2K Ohm)	Erika Fiedler
V0406	Coupling Unit	SR (22K Ohm)	Erika Fiedler
V0407	Coupling Network	"M"	Erika Fiedler
V0408	Coupling Network	"A"	Erika Fiedler
V0409	Coupling Network	"A"	Erika Fiedler
V0410	Coupling Network	"A"	Erika Fiedler
V0411	Coupling Network	"L"	Erika Fiedler
V0412	Coupling Network	"L"	Erika Fiedler
V0413	Coupling Network	"L"	Erika Fiedler
V0414	A/V adapter	Type 2	Erika Fiedler

Conducted Emission (EN 55022)

Test Procedures

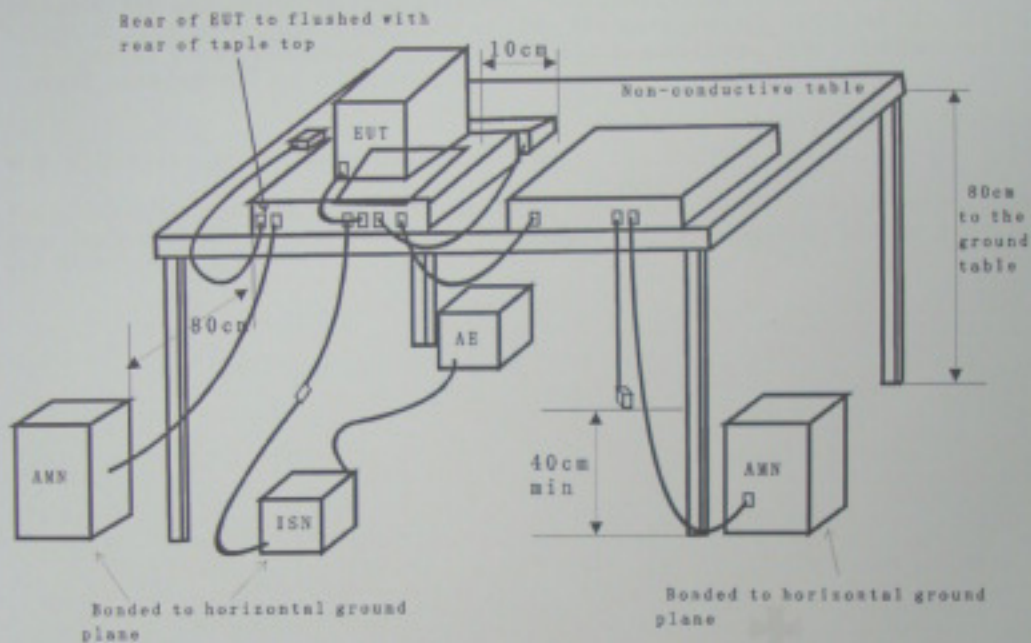
- Test configuration

The test configuration is contained inside of a shielded chamber and corresponds to the standard EN55022. The equipment under test is placed in the facility on a wooden table 0.8m high. The equipment under test is connected with the artificial mains network (AMN) in a distance of 0,8m and also 0,8m from other subassembly and metallic area. (see picture 1) The observation of the equipment under test is realized by 3 video cameras and by a microphone.

- Test parameters and marginal conditions

The test are carried out with a nominal impedance by 50 Ω /50 μ H of the AMN in a frequency range 150 kHz to 30 MHz. Further information please find in test report.

Conducted Emission according to
EN 55022



AMN =Artificial mains network
 AE =Associated equipment
 EUT =Equipment under test
 ISN =Impedance stabiliation network

EN 55022:2006+A1:2007, EN 61000-6-1:2001, EN 61000-6-3:2001
 EN 55024:1998+A1:2000+A2:2003, EN 61000-4-2/-3

Spurious Emission (EN 55022)

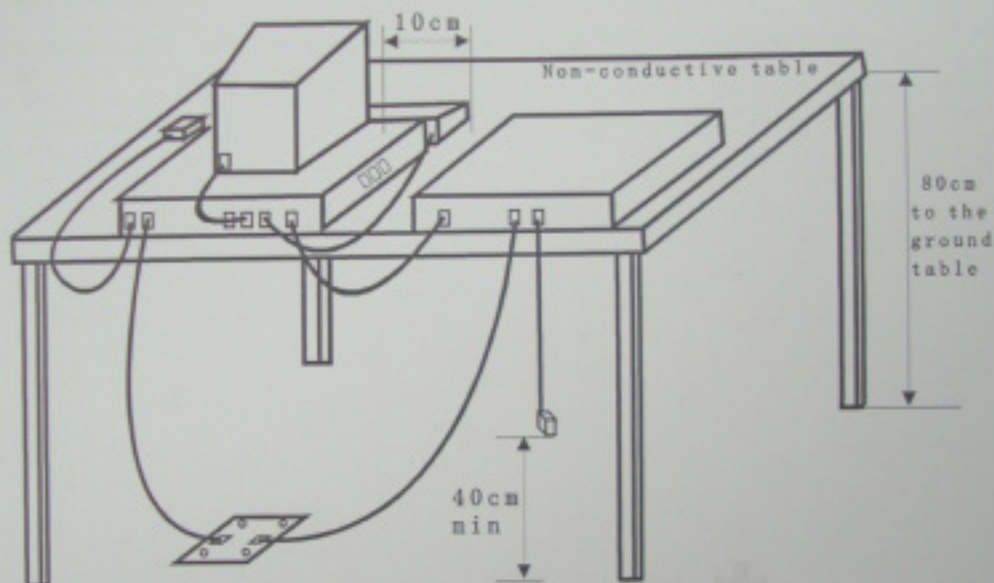
Test Procedures

● Test configuration

The test configuration corresponds to the standard EN55011. The equipment under test is placed on anon metallic table with 0.8m height. The power supply and the EF connection points are close to the equipment under test at the floor inside a connection box. The cables to this connection box are shielded and below the double floor. The receiving antenna is placed in a height at 1,0m to 4,0m, in a distance of 10m. The measurement receiver are placed in a special room. The observation of the equipment under test is realized by 3 video cameras and by a microphone.

● Test parameters and marginal conditions

The test are carried out with horizontal and vertical polarization of the antenna in a frequency range of 30MHz to 1000MHz. Further information please find in the test protocol.

Radiated Emission according to
EN55022

EN 55022:2006+A1:2007, EN 61000-6-1:2001, EN 61000-6-3:2001
EN 55024:1998+A1:2000+A2:2003, EN 61000-4-2/-3

Harmonic Current Emission / Voltage Fluctuations and Flicker(EN61000-3-2/-3)

Test Procedures

- Test configuration

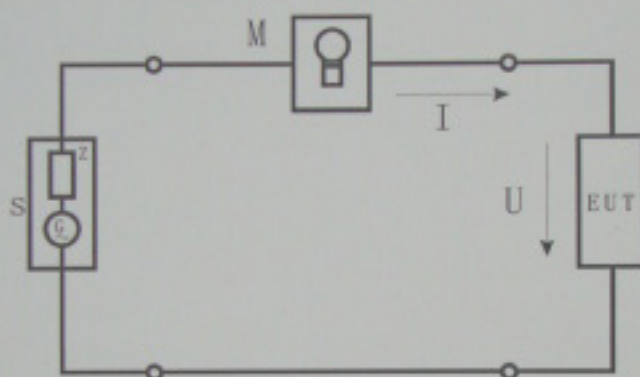
The test configuration is in correspondence to the standard EN 61000-3-2/-3. The equipment under test is placed on a wooden table with a height of 0.8m in the EMC lab.

- The parameters and marginal conditions

The harmonic test are carried out in according the classification A,B,C,D of the standard EN 61000-3-2. The flicker test are carried out in according the time interval of the standard EN 61000-3-3. Both tests are carried out with above mentioned equipment with 230V and 50Hz. Further information please find in test protocol.

CURRENT HARMONICS AND FLICKER
ACCORDING TO

EN 61000-3-2
EN 61000-3-3



- S supply source
M measuring equipment
EUT equipment under test
U test voltage
 Z_m input impedance of the measuring equipment
 Z_s internal impedance of the supply source
I upper shrinkage portion of the conduction current order
G open-circuit voltage of the supply source

Electrostatic Discharge

Test procedures

● Test configuration

The test configuration is in correspondence to the standard EN 61000-4-2. The equipment under test is placed on a wooden table with one metal plate on its top one metal plate under the table. Which is grounded. Both plates are connected with two 470k Ω resistor in series.

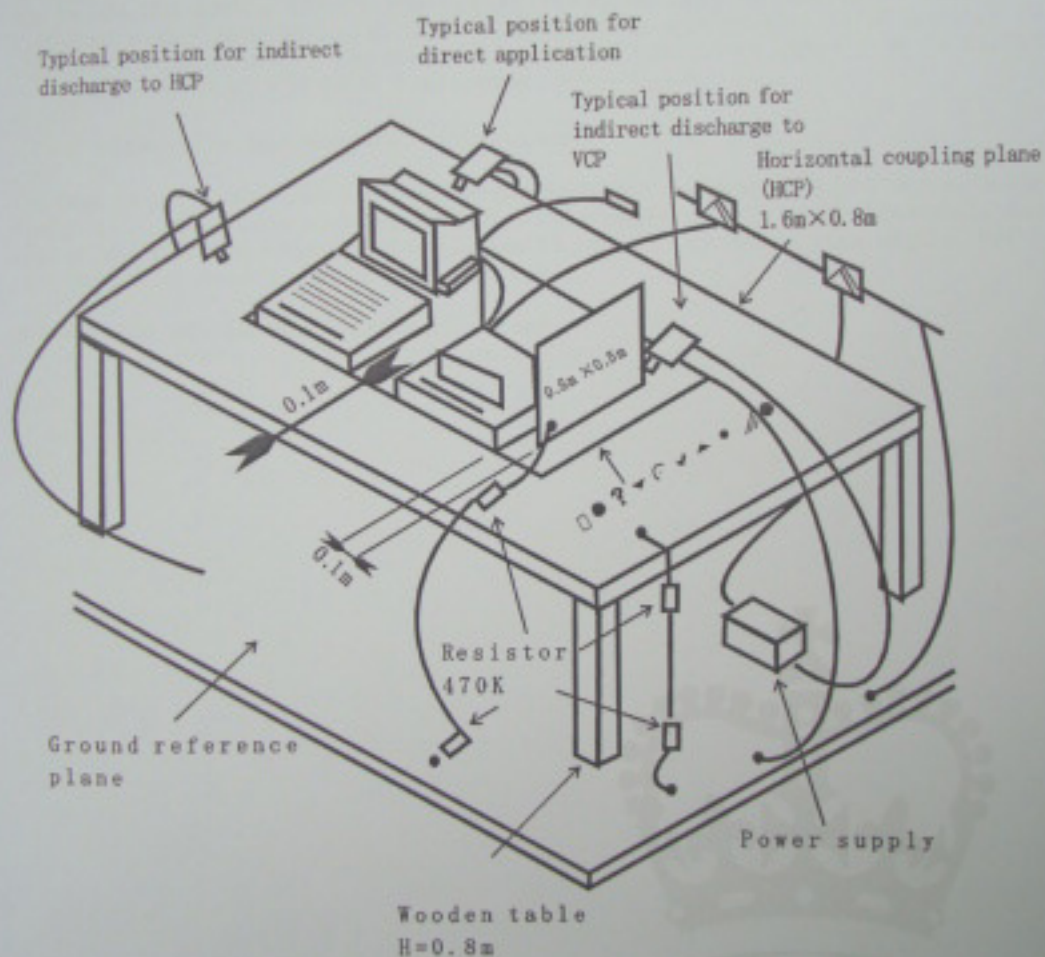
● Test parameters and marginal conditions

The test is carried out with ± 2 kV, ± 4 kV and ± 6 kV contact discharge and ± 2 kV, ± 4 kV and ± 8 kV air discharge. The tested points please find in the protocol.

Observation of the equipment under test.

ELECTROSTATIC DISCHARGE ACCORDING TO

EN 61000-4-2



EN 55022:2006+A1:2007, EN 61000-6-1:2001, EN 61000-6-3:2001
 EN 55024:1998+A1:2000+A2:2003, EN 61000-4-2/-3

RF Electromagnetic Field (80-1000MHz)

Test Procedures

● Test configuration

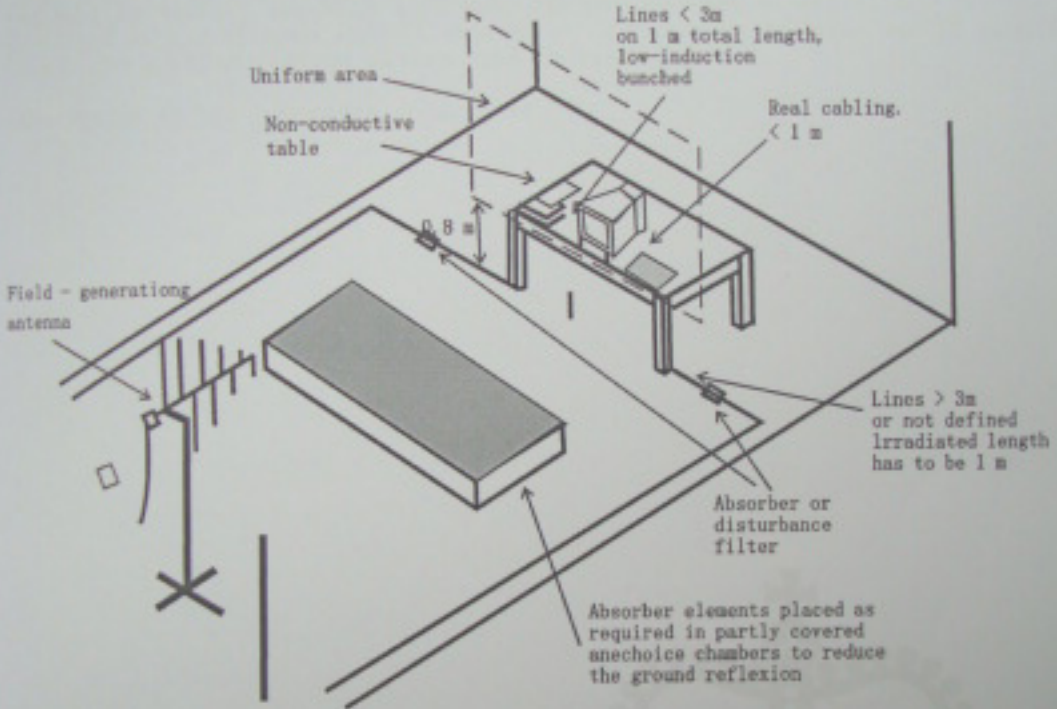
The test configuration is contained of a shielded chamber and corresponds to the standard EN 61000-4-3. The equipment under test is placed in the facility on a wooden table 0.8m high on the centre axis of the chamber. The power supply and the RF connection points are to the equipment under test at the floor of the chamber inside a connection box. The cables to this connection box are shielded and below the double floor. The transmitting antenna is placed in a height of 1.5m, in a distance of 3.0m. The RF-generators are placed in a special room adjacent to the chamber. The observation of the equipment under test is realized by 3 video cameras and by a microphone.

• Test parameters and marginal conditions

The test is carried out with a field strength by 10V/m (measured in the unmodulated field) with amplitude modulated signal by a depth of 80% by a sinusoidal audio signal of 1 kHz. The logarithmic step was 1% and the remaining time was 1s. Further information please find in test protocol.

Observation of the equipment under test.

RF-FIELD ACCORDING TO
EN61000-4-3



EN 55022:2006+A1:2007, EN 61000-6-1:2001, EN 61000-6-3:2001
EN 55024:1998+A1:2000+A2:2003, EN 61000-4-2/-3

Transients common mode

Test Procedures

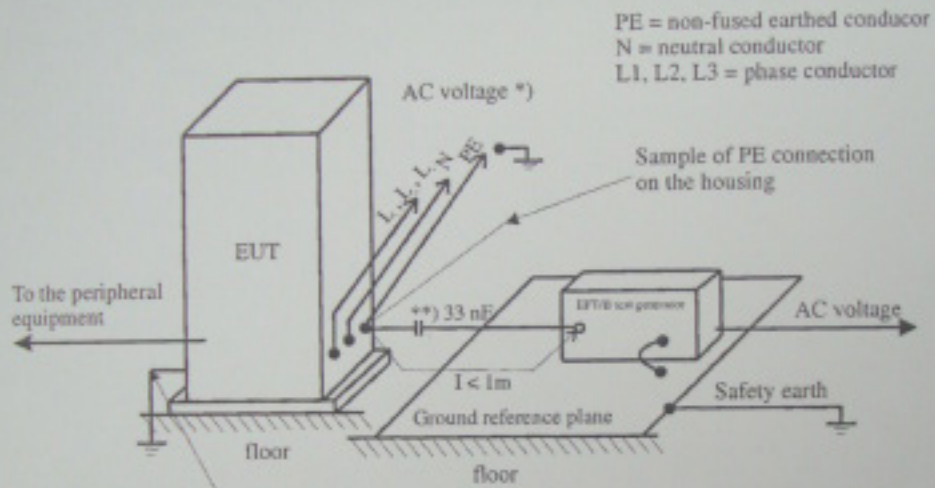
● Test configuration
The test configuration is contained is in corresponds to the standard EN 61000-4-4.
The equipment under test is placed on a wooden table with a height of $0.8m \pm 0.08m$. The table stands on metal plate which is grounded.

● Test parameters and marginal conditions

The test is carried out with 1 kV open circuit voltage on signal and control ports and with 2 kV open circuit voltage on AC mains power input and DC power ports. The applied voltage please find in test protocol.

Observation of the equipment under test.

ELECTRICAL FAST TRANSIENTS ACCORDING TO
EN 61000-4-4



PE = non-fused earthed conductor
N = neutral conductor
L1, L2, L3 = phase conductor

Connection to the chassis according to the information of the manufacturer. The length must be indicated on the test plan.

*) DC voltage will be tested in a similar way
**) Isolating capacitor if required

Transients surge common and differential mode

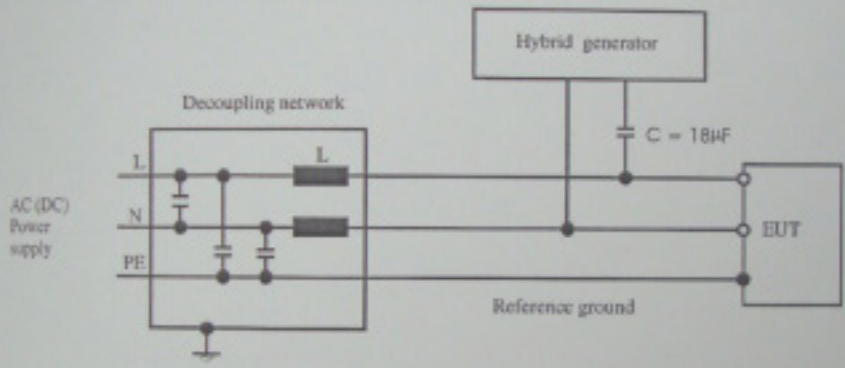
Test procedures

● Test configuration
The test configuration is in correspondence to the standard EN 61000-4-5. The equipment under test is placed on a wooden table with a height of 0.8m. The table stands on metal plate which is grounded.

● Test parameters and marginal conditions

The test are carried out with 2kV open circuit voltage for common mode and with 1kV open circuit voltage for differential mode and signal line. Further information please find in the protocol.

TRANSIENTS COMMON & DIFFERENTIAL MODE
 ACCORDING TO
 EN61000-4-5



Radio frequency common mode

Test Procedures

● Test configuration

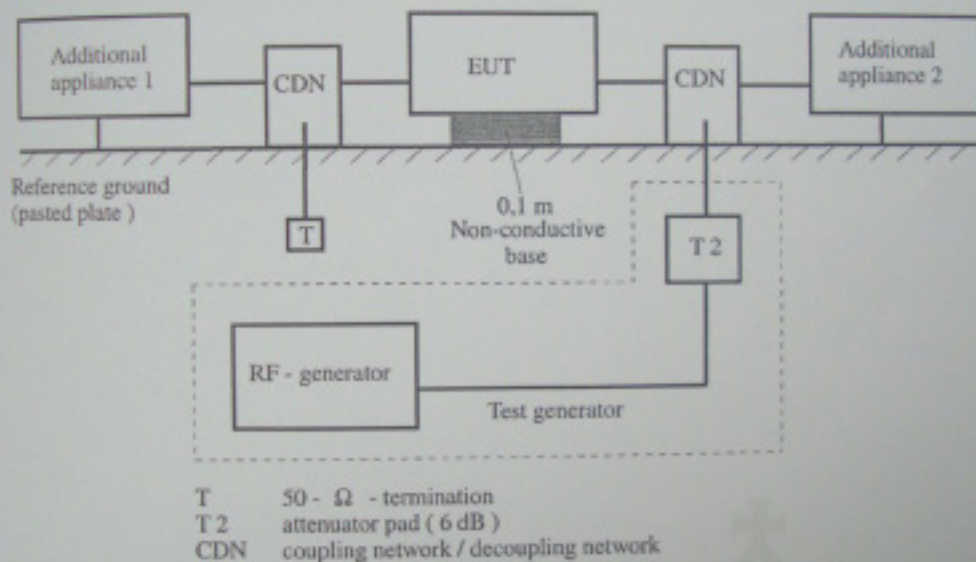
The test configuration is contained is in corresponds to the standard EN 61000-4-6. The test is carried out on a wooden table with a grounded metal plate on its top. The equipment under test is placed on an insulating support of 0.1m height above this metal plate.

● Test parameters and marginal conditions

The test are carried out with a Voltage of 10V RMS (measured unmodulated) with amplitude modulated signal by a depth of 80% by a sinusoidal signal of 1 kHz. The frequency steps in the frequency range 150kHz-80MHz increments with 1% of the actual frequency. The remaining time is 1s. The tested ports please find in test protocol.

RF-CONTINUES CONDUCTED ACCORDING TO

EN 61000-4-6



Voltage dips and interruptions

Test Procedures

● Test configuration

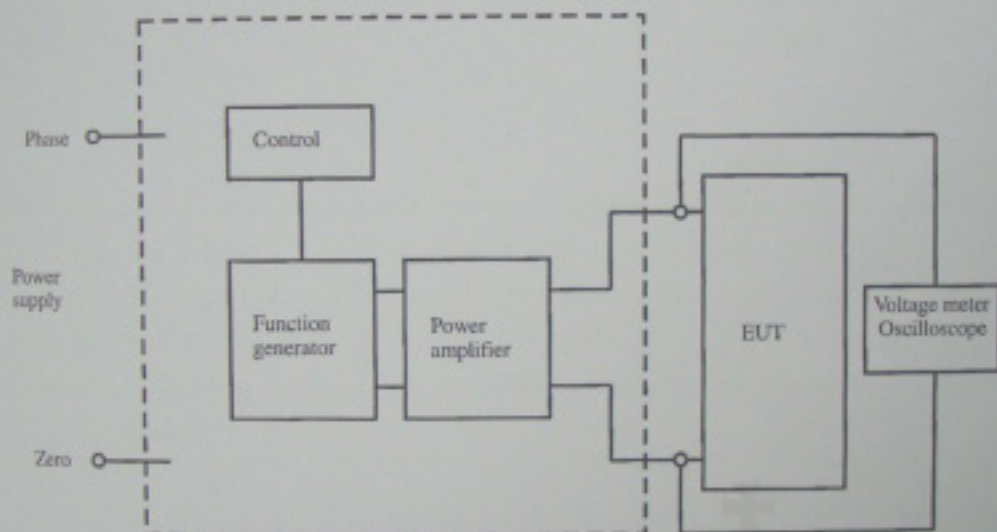
The test configuration is contained is in corresponds to the standard EN 61000-4-11. The equipment under test is placed on a wooden table with a height of 0.8 metre.

● Test parameters and marginal conditions

The test levels corresponding to a reduction of the supply voltage of 30% (for 10ms) of 60% (for 100ms and 1s) and interruption >95(5s). The applied voltage please find in test protocol.

VOLTAGE DIPS AND INTERRUPTION
ACCORDING TO

EN 61000-4-11



CONDUCTED EMISSION

EMISSION

Standar : EN 55022

Device : GJ-47

Class : A

Temperature : 25 °C

Pressure : 950 hPa

Rel. humidity: 40%

Frequency Range	Network	Passed	Failed	Number of rechecks
150 kHz-45 MHz	R S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0

RADIO NOISE FIELD STRENGTH
EMISSION

Standard : EN 55022

Device : GJ-47

Class : B

Temperature : 25 °C

Pressure : 950 hPa

Rel. humidity: 40%

Frequency Range	Absorbing Clamp	Passed	Failed	Number of rechecks
30 MHz-300 MHz	R&S MDS 21	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0

EN 55022:2006+A1:2007, EN 61000-6-1:2001, EN 61000-6-3:2001
EN 55024:1998+A1:2000+A2:2003, EN 61000-4-2/-3

Project No.: 8607632 Registration No.: VT09057185 Page 36 of 50
FORM COPYRIGHT©VOV CERTIFICATION & TESTING LABORATORY LIMITED

LINE CONDUCTED EMISSION
- ABSORBING CLAMP -
EMISSION

Standard : EN 55022

Device : GJ-47

Class : A

Temperature : 25 °C
Pressure : 950 hPa
Rel. humidity: 40%

Frequency Range	Absorbing Clamp	Passed	Failed	Number of rechecks
30 MHz-300 MHz/vertical	R & S MDS 21	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0

ELECTROSTATIC DISCHARGE

ESD

Standard : EN 61000-4-2

Device : GJ-47

Temperature : 25 °C
 Pressure : 950 hPa
 Rel. humidity: 40%

Test point	Table (T) Floor (F)	Contact (C) Air (A)	Voltage (kV)	Polarity (+/-)	Remarks
Housing	T	A	2,4,8	+/-	B
Housing	T	C	2,4,6	+/-	B
Indirect	T	C	2,4	+/-	B

Remarks: A : No loss of performance or function
 B : Temporary loss of function or performance which is self-recoverable
 C : Temporary loss of function of perform. Which req. operat,
 intervention or system reset
 D : Loss of function which is not recoverable.

ELECTRICAL FAST TRANSIENTS
BURST

Standard : EN 61000-4-4

Device : GJ-47

Temperature : 25 °C
Pressure : 950 hPa
Rel. humidity: 40%

Testport	Voltage (kV)	Polarity (+/-)	Duration (s or min)	Waveform Tr / Th	Repetition Frequency (kHz)	Opinion
AC power line	2	ALT1	>1 min	5/50ns	5	B
Signal line	0.5	ALT1	>1 min	5/50ns	5	B

Remarks: A : No loss of performance or function
 B : Temporary loss of function or performance which is self-recoverable
 C : Temporary loss of function of perform. Which req. operat, intervention or system reset
 D : Loss of function which is not recoverable.

TRANSIENTS COMMON & DIFF. MODE
SURGE

Standard : EN 61000-4-5

Device : GJ-47

Temperature : 25 °C
Pressure : 950 hPa
Rel. humidity: 40%

Test mode	Voltage (kV)	Waveform Tr/Th	Remarks
Neutral to protective earth	0.5, 1 and 2	1.2/50us	B
Phase to protective earth	0.5, 1 and 2	1.2/50us	B
Phase to phase	0.5 and 1	1.2/50us	B
Phase to neutral	0.5 and 1	1.2/50us	B

Remarks: A : No loss of performance or function
 B : Temporary loss of function or performance which is self-recoverable
 C : Temporary loss of function of perform. Which req. operat, intervention or system reset
 D : Loss of function which is not recoverable.

CONTINUES CONDUCTED
RF - COMMON MODE

Standard : EN 61000-4-6

Device : GJ-47

Temperature : 25 °C
Pressure : 950 hPa
Rel. humidity: 40%

Test port	Voltage (rms)	Modulation Frequency	Frequency Range	Opinion
AC power line	3	1 kHz	150kHz-230MHz	A
Signal line	1	1 kHz	150kHz-80MHz	A

Remarks: A : No loss of performance or function
 B : Temporary loss of function or performance which is self-recoverable
 C : Temporary loss of function of perform. Which req. operat, intervention or system reset
 D : Loss of function which is not recoverable.

VOLTAGE DIPS AND INTERRUPTION

V - DIPS

Standard : EN 61000-4-11

Device : GJ-47

Temperature : 25 °C
 Pressure : 950 hPa
 Rel. humidity: 40%

Reduction of supply voltage of	Voltage in % (in V)	Duration in parts of period (in ms)	Remarks
Interruption	0% (0 V)	0.5 (10ms)	B
60%	40% (161 V)	10 (200ms)	B
30%	70% (92 V)	50 (1000ms)	B

Remarks: A : No loss of performance or function
 B : Temporary loss of function or performance which is self-recoverable
 C : Temporary loss of function of perform. Which req. operat, intervention or system reset
 D : Loss of function which is not recoverable.

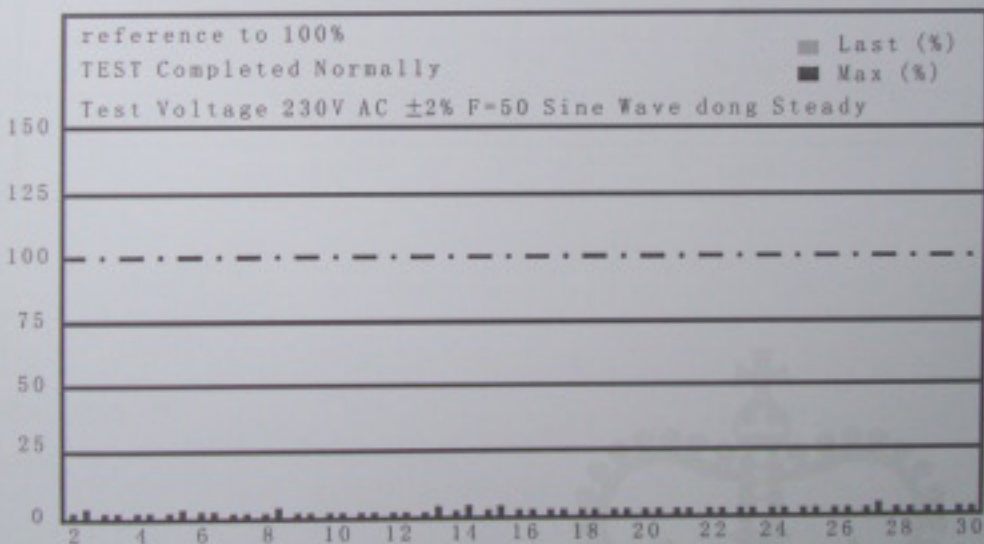
CURRENT HARMONICS
HARMONICS

Standard : EN 61000-3-2

Device : GJ-47

Class : A

Temperature : 25 °C
Pressure : 950 hPa
Rel. humidity: 40%



Passed : yes/no

VOLTAGE FLUCTUATION
FLICKERStandard : EN 61000-3-3Device : GJ-47Class : A

Temperature : 25 °C

Pressure : 950 hPa

Rel. humidity: 40%

Pst	pass
Plt < 0.65	pass
Dc < 3.3%	pass
Dt < 3%	pass
D max (%)	pass

Passed : yes/noRemarks:

IMMUNITY

Standard : EN 55024

Device : GJ-47

Temperature : 25 °C

Pressure : 950 hPa

Rel. humidity: 40%

Passed : yes/no

Remarks : This equipment under test fulfils all requirements acc. EN 55024

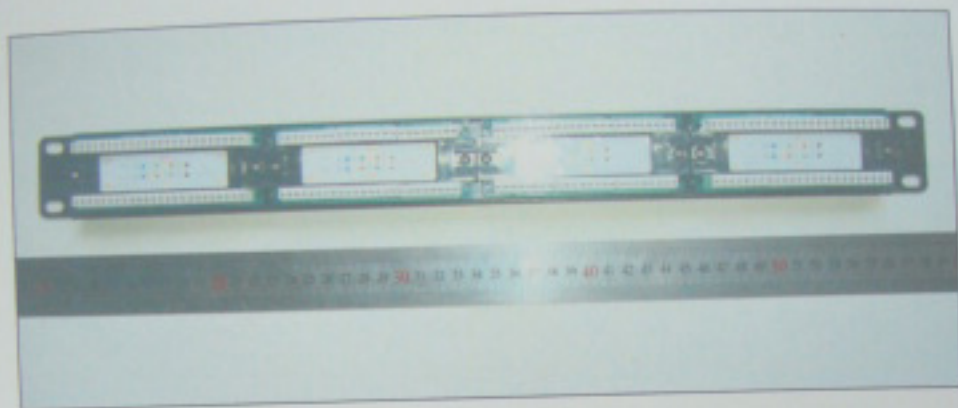
PRODUCT LABELING

CE Mark Label Specification



Specifications: Text is Black or white in color and is left justified. Labels are printed in indelible ink on permanent adhesive backing or silk-screened onto the EUT or shall be affixed at a conspicuous location on the EUT.

EUT PHOTOGRAPHS (EUT FRONT VIEW)





Manufacturer/Approval Holder Declaration

The following identical model(s):

GJ-47
GJ-19
GJ-38
GJ-34
GJ-21S
GJ-21
GJ-42
GJ-28
GJ-28S
GJ-16

Belong to the tested device:

Product description: PATCH PANEL

Model name: GJ-47

No additional models were tested.

EC DECLARATION OF CONFORMITY

Council Directive 2004/108/EC on EMC Directive

ZHEJIANG NEW-EPOCH COMMUNICATION FACILITY CO., LTD.
WENGYANG INDUSTRIAL ZONE, YUEQING CITY, ZHEJIANG, P.R.CHINA

DESCRIPTION OF TEST ITEM

PATCH PANEL

TYPE IDENTIFICATION

GJ-47, GJ-19, GJ-38, GJ-34, GJ-21S, GJ-21
GJ-42, GJ-28, GJ-28S, GJ-16

THE PRODUCT HAS BEEN ASSESSED BY THE APPLICATION ON THE FOLLOWING DIRECTIVES:

EN 55022:2006+A1:2007
EN 61000-6-1:2001, EN 61000-6-3:2001
EN 55024:1998+A1:2000+A2:2003, EN 61000-4-2/-3

(Place & Date of issue)

Company stamp and
Signature of Authorized Personnel

Test Report No.: 8607632

EN 55022:2006+A1:2007, EN 61000-6-1:2001, EN 61000-6-3:2001
EN 55024:1998+A1:2000+A2:2003, EN 61000-4-2/-3