

Duty Cycle Calculation:

See also Para 4.4 Occupancy Time.

RF duty cycle: Calculation according to RF burst Para 15.35 (c)

$$20 \cdot \log(438 \mu\text{sec}/0,1 \text{ sec}) = - 47.1 \text{ dB}$$

Maximum duty cycle according to Para 15.35 (b): -20 dB

This value is used when measuring average field strength above 1 GHz with Peak Detector function employed on spectrum analyzer.

Radiated emission 30 – 1000 MHz.

Detector: Quasi-Peak

Measuring distance 10 m according to CISPR 22.

Tested in speech mode with active connection.

Frequency	Operational condition	Field strength	Measuring distance	Limit FCC15.209	Margin
MHz		dB μ V/m	metres	dB μ V/m	dB
192.15	TX on	12.2	10	33.0	20,8
196.1	TX on	12.4	10	33.0	20,6
790.0	TX on	18.1	10	35.5	17.4
960.0	TX on	19.6	10	35.5	15.9

See attached graph.

Radiated emission 10 kHz-30 MHz.

Measuring distance 10 m, measured with Peak detector.

No component detected, see attached graph.

Limit is converted to 10 m using 40 dB/decade according to 15.31 (f) (2).

Nemko ComTab AS

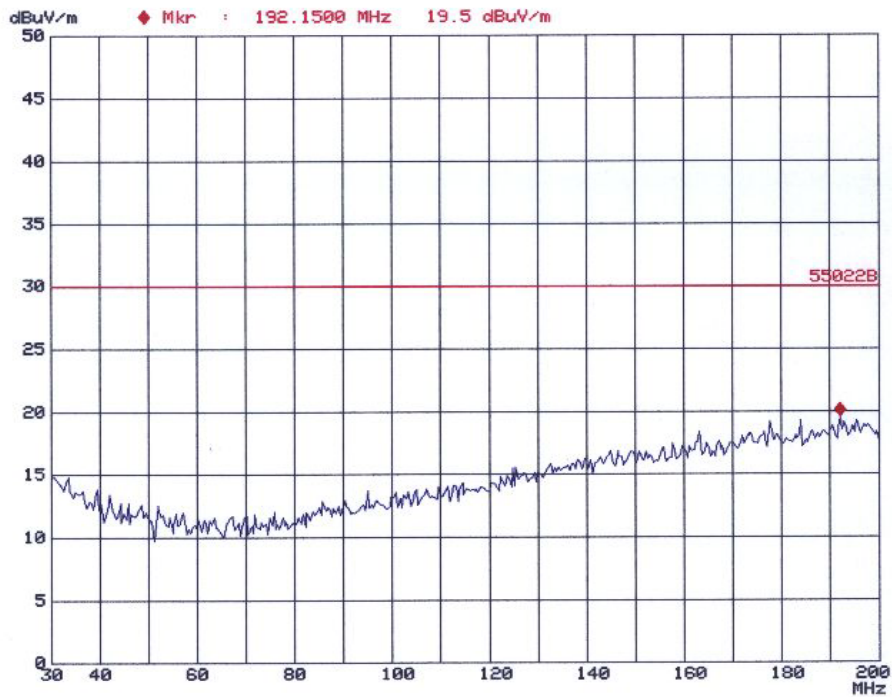
Peak

EUT: Beocom2 PP Transmitter active
Manuf: B O
Op Cond: VP 1 m
Operator: Egh
Test Spec: CISPR22
Date: 21. Oct 03 13:29

Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
30M	200M	50k	120k	PK	20ms	AUTO	LN ON	60dB

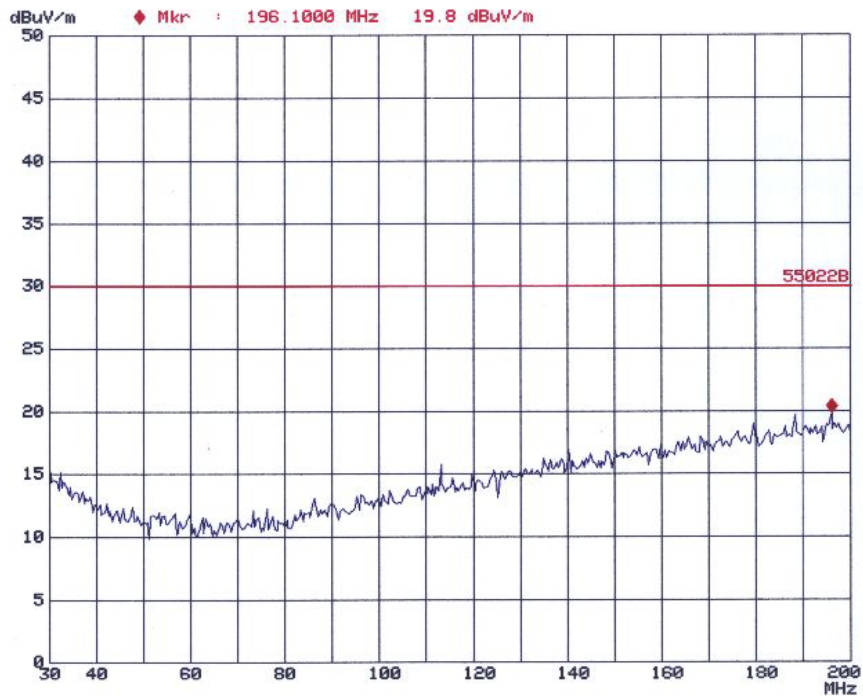
Transducer No.	Start	Stop	Name
20	30M	200M	HK116



30-200 MHz vertical polarized, measuring distance 10 m

Nemko ComLab AS
Peak
EUT: Beocom2 PP Transmitter active
Manuf: B O
Op Cond: HP 4 m
Operator: Egh
Test Spec: CISPR22
Date: 21. Oct 03 13:36

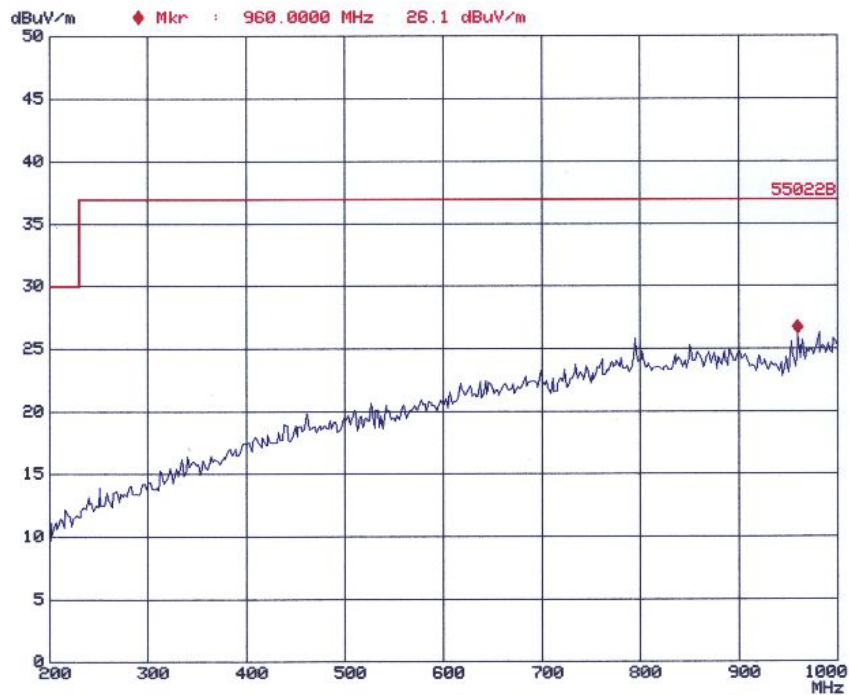
Scan Settings (1 Range)
|----- Frequencies -----||----- Receiver Settings -----|
Start Stop Step IF BW Detector M-Time Atten Preamp OpRge
30M 200M 50k 120k PK 20ms AUTO LN ON 60dB
Transducer No. Start Stop Name
20 30M 200M HK116



30-200 MHz, horizontal polarization, measuring distance 10 m

Nemko ComLab AS
Peak
EUT: Beocom2 PP Transmitter active
Manuf: B O
Op Cond: VP 1 m
Operator: Egh
Test Spec: CISPR22
Date: 21. Oct 03 12:48

Scan Settings (1 Range) |----- Receiver Settings -----|
|----- Frequencies -----|
Start Stop Step IF BW Detector M-Time Atten Preamp OpRge
200M 1000M 50k 120k PK 20ms AUTO LN ON 60dB
Transducer No. Start Stop Name
22 200M 1000M HL223HP



200-1000 MHz, vertical polarization, measuring distance 10 m

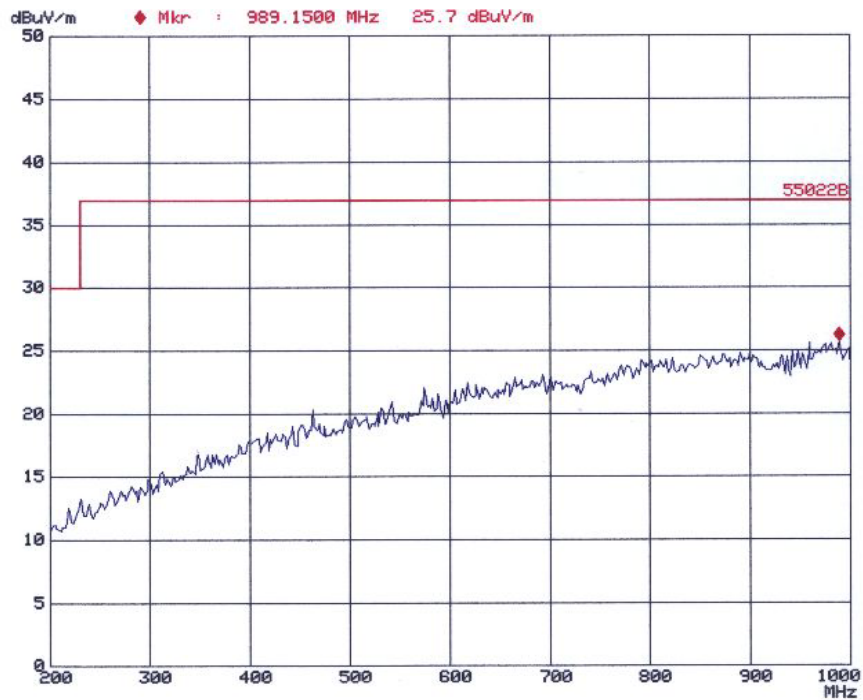
Nemko ComLab AS

Peak
EUT: Beocom2 PP Transmitter active
Manuf: B O
Op Cond: HP 4 m
Operator: Egh
Test Spec: CISPR22
Date: 21. Oct 03 13:00

Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
200M	1000M	50k	120k	PK	20ms	AUTO	LN ON	60dB

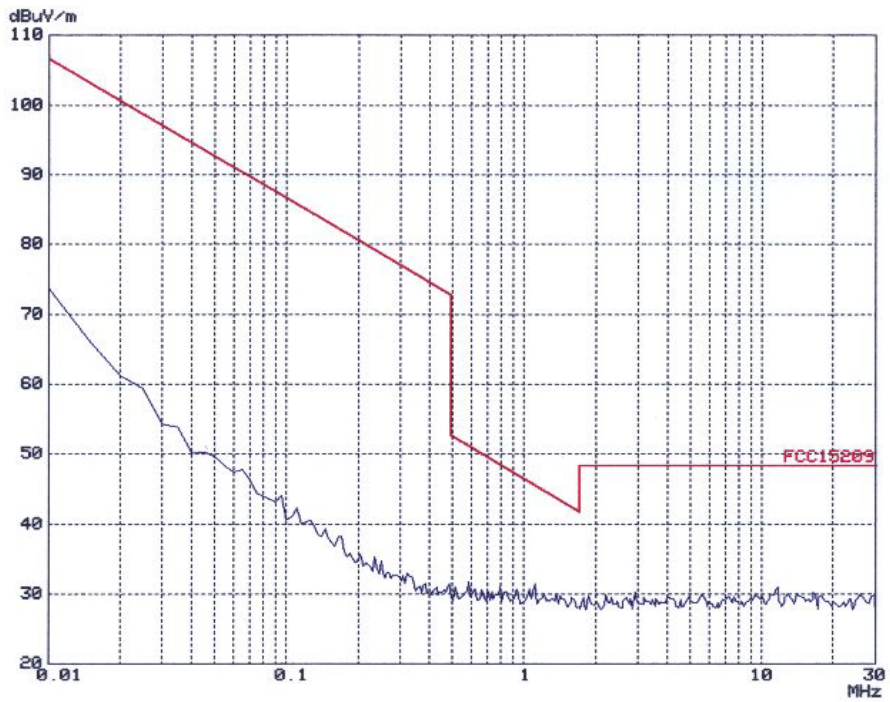
Transducer No.	Start	Stop	Name
22	200M	1000M	HL223HP



200-1000 MHz, horizontal polarization, measuring distance 10 m

NEMKO COMLAB AS
PEAK
Operator: Egh
Comment: BeoCom 2
Distance 10 m
Transmitter active
FCC15.209
Limit converted to 10 m
Date: 31. Oct 03 10:12

Scan Settings (1 Range)
|----- Frequencies -----| |----- Receiver Settings -----|
Start Stop Step IF BW Detector M-Time Atten Preamp OpRge
10k 30M 5k 9k PK 20ms AUTO LN OFF 60dB
Transducer No. Start Stop Name
13 10k 30M HFH222



Radiated 10 kHz-30 MHz, measuring distance 10 m

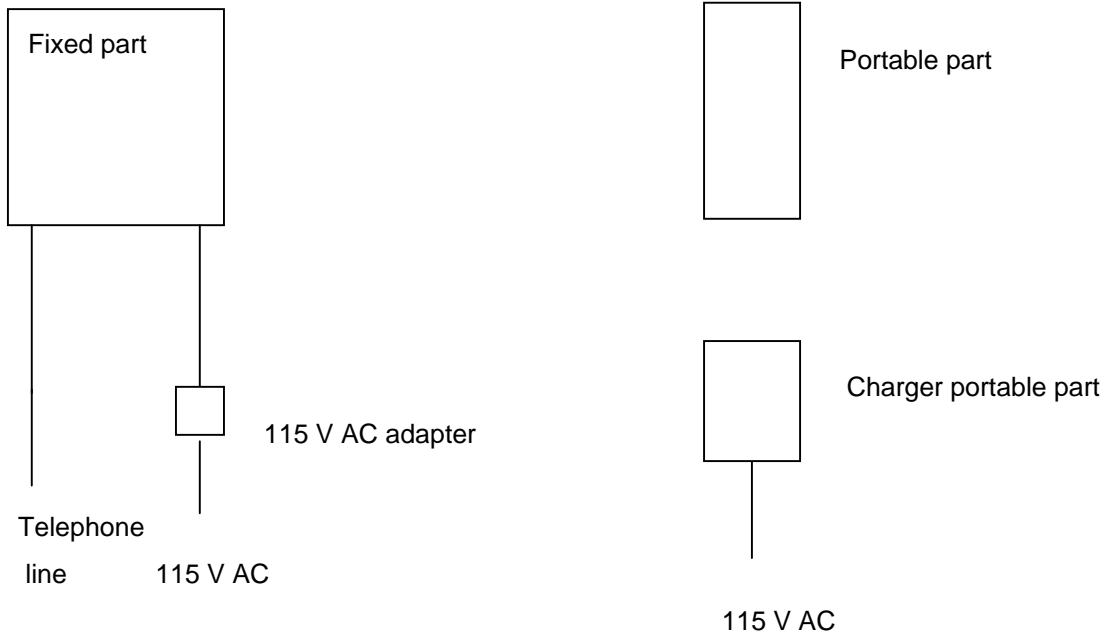
5 LIST OF TEST EQUIPMENT

To facilitate inclusion on each page of the test equipment used for related tests, each item of test equipment and ancillaries are identified (numbered) by the Test Laboratory.

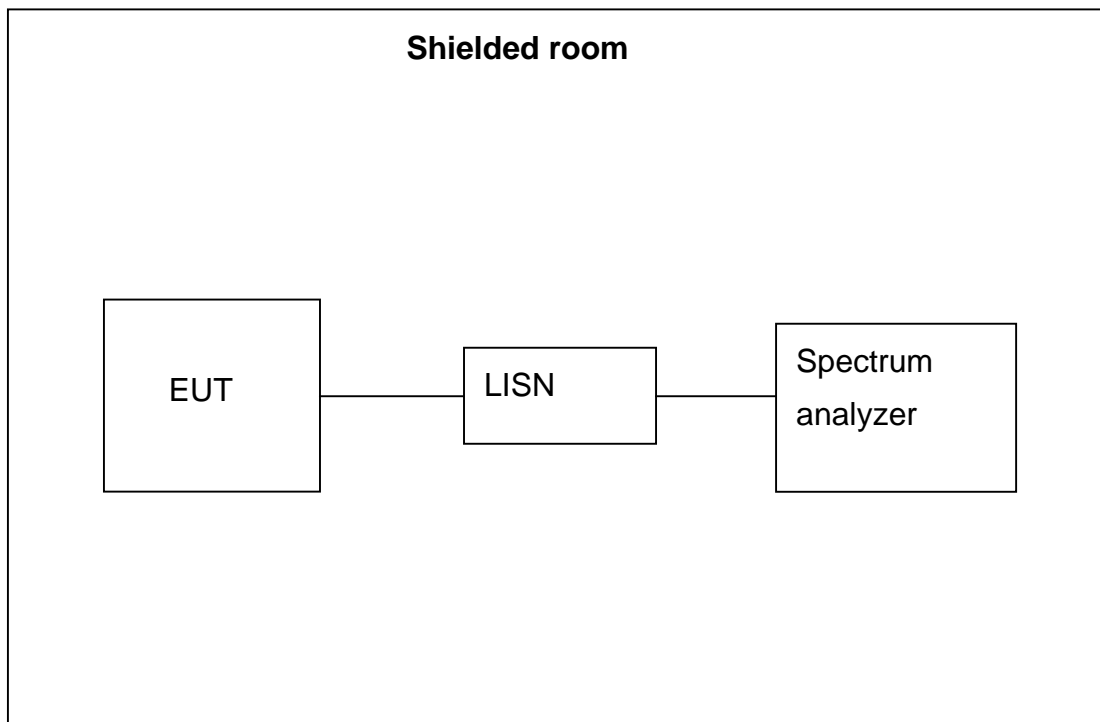
No.	Instrument/ancillary	Type of instrument/ancillary	Manufacturer	Ref. no.
1	FSEK	Spectrum Analyzer	Rohde & Schwarz	LR 1337
2	ESAI	Spectrum Analyzer	Rohde & Schwarz	LR 1090
3	3115	Antenna horn	EMCO	LR 1330
4	643	Antenna horn	Narda	LR 093
5	642	Antenna horn	Narda	LR 220
6	PM7320X	Antenna horn	Siverts lab	LR 103
7	DBF-520-20	Antenna horn	Systron Donner	LR 101
8	638	Antenna horn	Narda	LR 098
9	5VF1000/2000	BP filter	Trilithic	LR 1174
10	5VF2000/4000	BP filter	Texscan	LR 42
11	ESH3-Z3	LISN	Rohde & Schwarz	LR 1076
12	8449B	Amplifier	Hewlett Packard	LR 1322
13	959C	Printer	Hewlett Packard	LR 1414
14	HFH2-Z2	Antenna loop	Rohde and Schwarz	LR 285
15	10855A	Amplifier	Hewlett Packard	LR 1445
16	HL223	Antenna log.per	Rohde & Schwarz	LR 1261
17	3104C	Antenna biconic	EMCO	LR 1262
18	R3271	Spectrum Analyzer	Advantest	LR 1123
19	ESN	Test Receiver	R&S	LR1237

6 BLOCK DIAGRAM

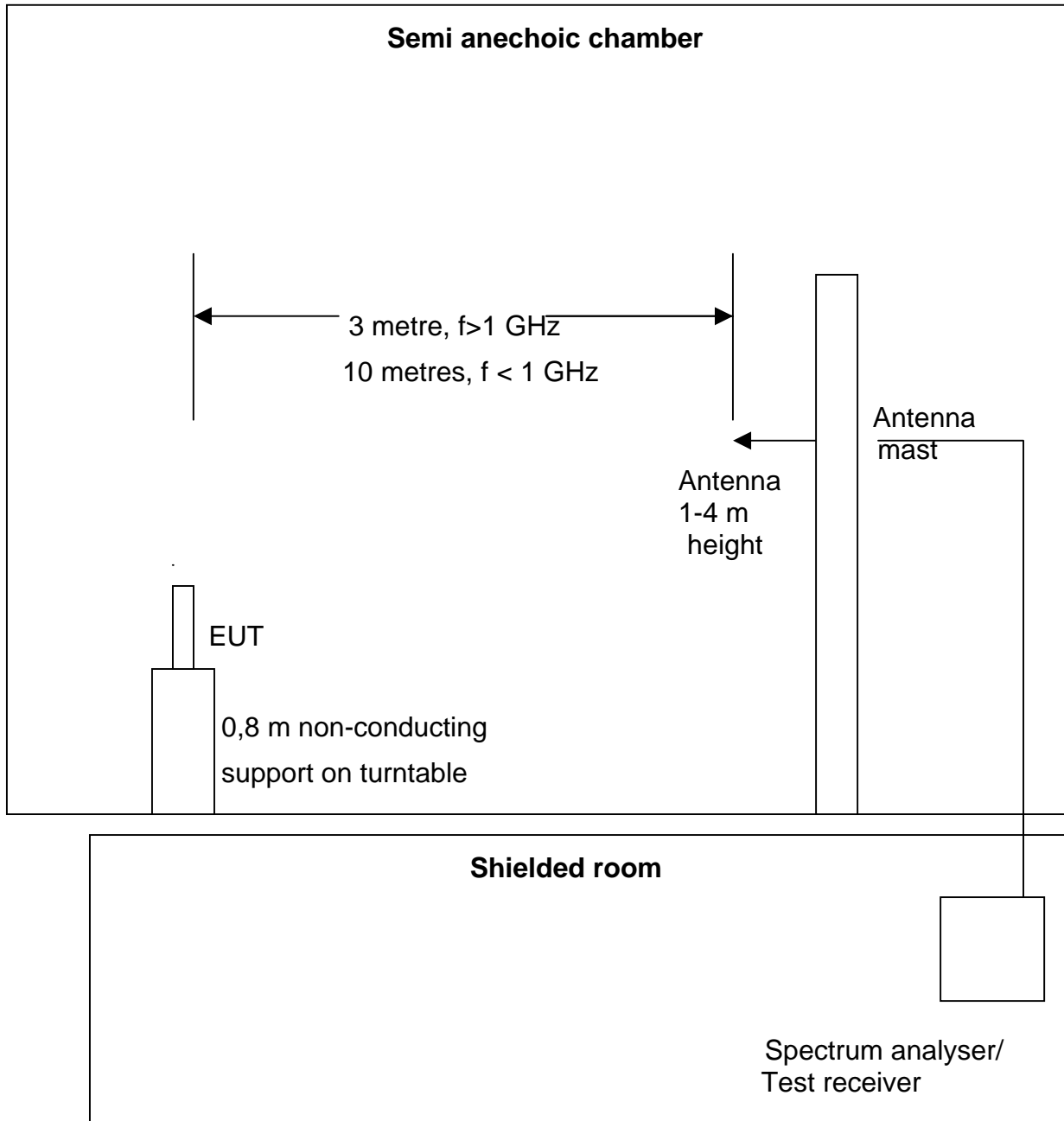
6.1 System set up



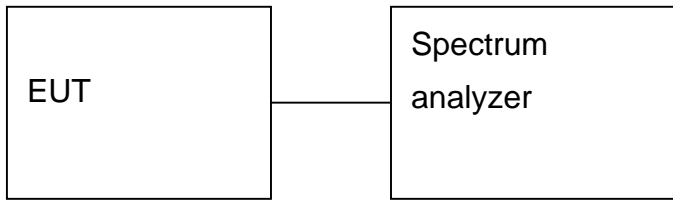
6.2 Powerline Conducted Emission



6.3 Test Site Radiated Emission



6.4 Peak Power Output



7 PICTURES OF TEST SET-UP AND THE TESTED EQUIPMENT



Radiated emissions below 1000 MHz



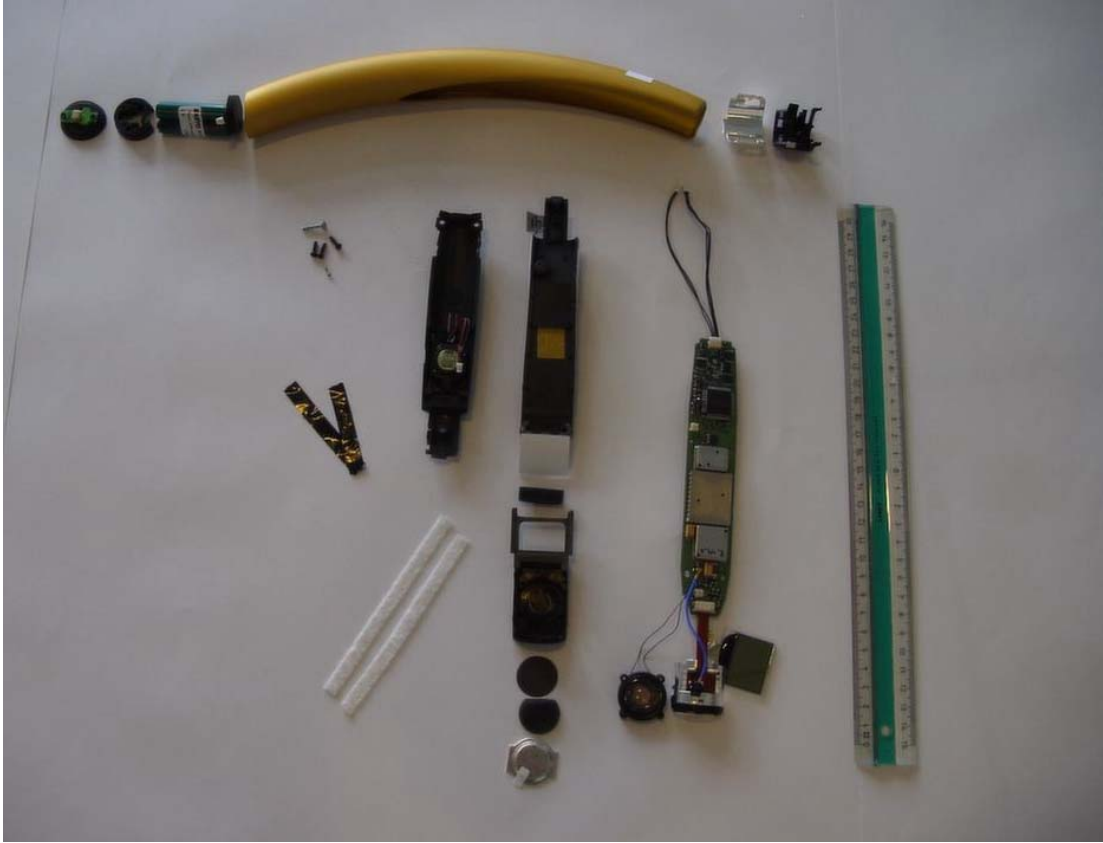
Radiated emission above 1 GHz



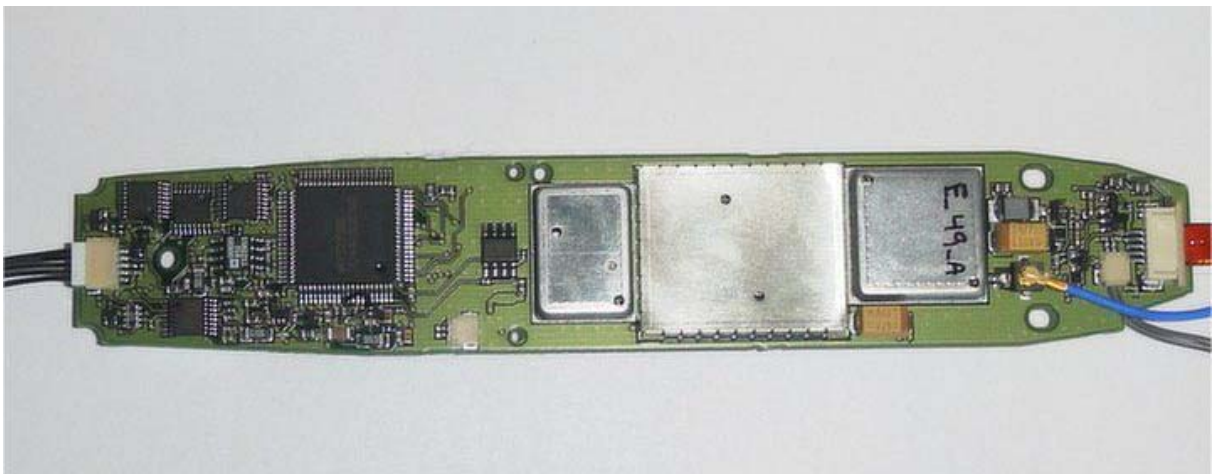
Conducted emission



Equipment under test



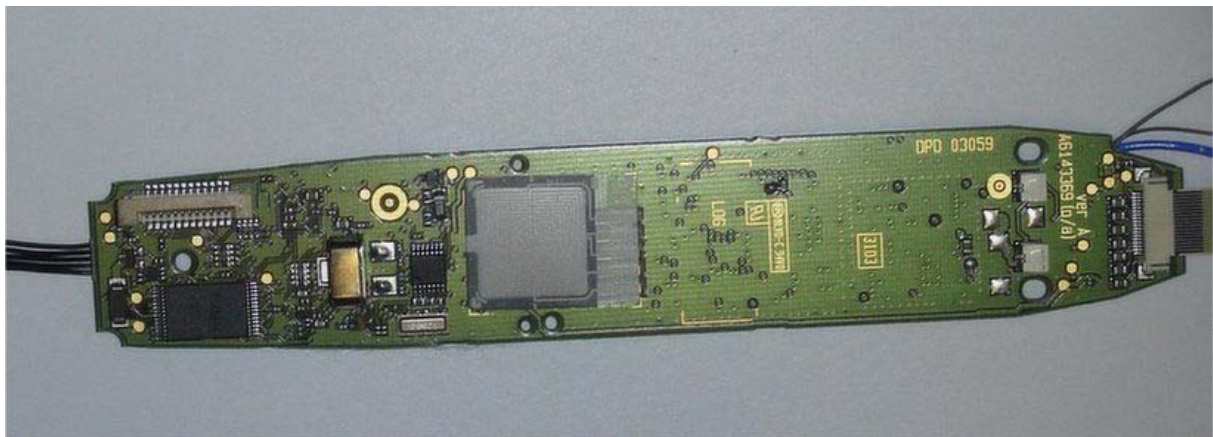
BeoCom2



RF module front view



BeoCom2 with keypad



RF module back view