TCC Nokia

FINAS Finnish Accreditation Service T117 (EN ISO/IEC 17025)

FCC Part 15B Compliance Test Report

Test Report no.:	Cph_FCC_0836_03.doc	**Date of Report:**	04-Sep-2008
Number of pages:	12	**Customer's Contact person:**	Sonja Lankinen
Testing laboratory:	TCC Nokia Copenhagen Laboratory Frederikskaj 1790 COPENHAGEN V DENMARK Tel. +45 33 292929 Fax. +45 33 292934	**Customer:**	Nokia Corporation 12278 Scripps Summit Drive SAN DIEGO CA. 92131 USA Tel. +1 858 831 5000 Fax. +1 858 831 6500
FCC listing no.: **IC recognition no.:**	99059 661AD-1		
Tested devices/ accessories:	**Phone: RM-462 (HW 0202), Battery: BP-4L, USB data cable: CA-101 AC charger: AC-4U, Laptop: T-43**		
FCC ID:	QMNRM-462	**IC:**	661X-RM462
Supplement reports:	None		
Testing has been carried out in accordance with:	**CFR 47, FCC rules Part 15 Subpart B, ANSI C63.4 (2003), ICES-003, CISPR 22 and IC standards RSS-132 (Issue 2, September 2005), RSS-133 (Issue 4, February 2008), RSS-139 (Issue 1, February 2008) and RSS-210 (Issue 7, June 2007). Deviations, modifications or clarifications (if any) to above mentioned documents are written in each section under "Test method and limit".**		
Documentation:	The test report must always be reproduced in full; reproduction of an excerpt only is subject to written approval of the testing laboratory. The documentation of the testing performed on the tested devices is archived for 15 years at TCC Nokia.		
Test Results:	**The EUT complies with the requirements in respect of all parameters subject to the test.** The test results relate only to devices specified in this document.		
Date and signature for the contents:	Niels Christian Andersen Digitally signed by Niels Christian Andersen DN: cn=Niels Christian Andersen, c=DK, o=TCC Nokia, ou=EMC, email=christian.n.andersen@nokia.com Date: 2008.09.04 14:26:15 +02'00'		

Christian Andersen, Test System Manager

1. Summary for FCC Part 15B Compliance Test Report

Date of receipt	04-Aug-2008
Testing completed	04-Sep-2008
The customer's contact person	Sonja Lankinen
Test Plan referred to	T:\Projects\RM-462\TestPlan_RS\RS_Testplan_RM-462_2nd.xls
Notes	None
Document name	T:\Projects\RM-462\EMC\Results\FCC\Cph_FCC_0836_03.doc

1.1. EUT and Accessory Information

The EUT is a 6-band (GSM850/900/1800/1900 and WCDMA Band II(1900)/V(850)) mobile phone with GPRS, EGPRS, Bluetooth and WLAN. GSM and WCDMA bands are tested in idle mode. Bluetooth and WLAN are tested with maximum rated TX power.

Product	Type	SN	HW	MV	SW	DUT
Phone	RM-462	004401/10/116523/7	0202	-	Vr 03.01	26951
Battery	BP-4L	393213820111077490 3;0670520	-	-	-	26955
AC charger	AC-4U	409049640456010032 1;0675379	-	-	-	26948
USB data cable	CA-101	07306347303	-	-	-	26944
Laptop	T-43	L3FLF78	-	-	-	29203
Phone	RM-462	004401/10/116336/4	0202	-	03.01	30552

1.2. Summary of Test Results

GSM 1900:

Section in CFR 47	Section in ICES-003 (RSS-133)	Name of the test	Result
15.107, a	5.3	AC power line conducted emissions	Passed
15.109, a	5.5 (6.6)	Radiated emissions	Passed

Bluetooth:

Section in CFR 47	Section in ICES-003	Name of the test	Result
15.107, a	5.3	AC power line conducted emissions	NP
15.109, a	5.5	Radiated emissions	Passed

WLAN:

Section in CFR 47	Section in ICES-003	Name of the test	Result
15.107, a	5.3	AC power line conducted emissions	NP
15.109, a	5.5	Radiated emissions	Passed

PASSED	The EUT complies with the essential requirements in the standard.
FAILED	The EUT does not comply with the essential requirements in the standard.
NP	The test was not performed by the TCC Nokia Copenhagen Laboratory.

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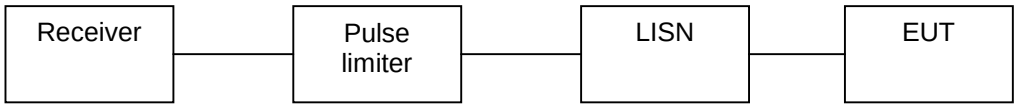
2. AC power line conducted emissions

(FCC §15.107, ICES-003 section 5.3)

EUT with DUT number	RM-462 dut 26951, BP-4L dut 26955
Accessories with DUT numbers	AC-4U dut 26948, CA-101 dut 26944, T-43 Dut 29203
Operation Voltage [V] / [Hz]	115 / 60
Result	Passed
Remarks	Continuous data transfer was active between the phone and the computer during the test.
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	21.9 / 51,5 100.87
Date of measurements	03-Sep-2008
Measured by	Jan Engelbrechtsen

2.1. Test setup



2.2. Test method and limit

The measurement is made according to ANSI C63.4-2003 as follows:

The EUT is placed on a wooden table 80 cm above the reference groundplane.

The EUT is connected via LISN to a test power supply.

The measurement results are obtained as described below:

$$U\ [dB\mu V] = U_{RX} + A_{TOT}$$

Where U_{RX} is receiver reading and A_{TOT} is total correction factor including cable and pulse limiter attenuations.

CISPR 22 Class B limits

Frequency range [MHz]	Quasi peak limit [dBµV]	Average limit [dBµV]
0.15 - 0.5	66 - 56	56 - 46
0.5 - 5	56	46
5 - 30	60	50

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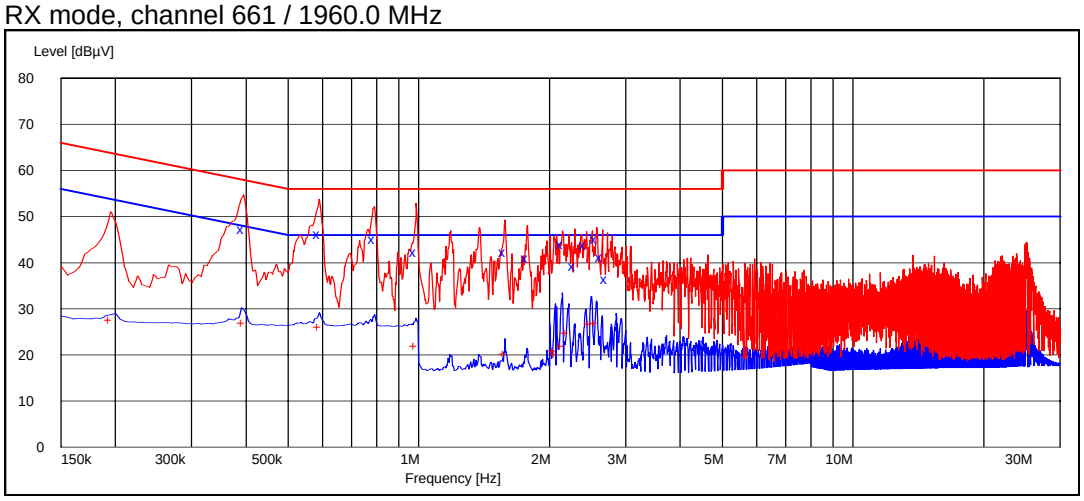
2.3. GSM 1900 Test results

RX mode, channel 661 / 1960.0 MHz



Quasi peak (RBW: 9 kHz)

Frequency [MHz]	U [dBµV]	Line	Result
0.395000	47.20	N	Pass
0.590000	46.30	N	Pass
0.790000	45.10	N	Pass
0.985000	42.20	N	Pass
1.580000	42.30	N	Pass
1.780000	40.90	N	Pass
2.145000	44.00	N	Pass
2.290000	39.30	N	Pass
2.425000	43.70	N	Pass
2.570000	45.20	N	Pass
2.635000	41.20	N	Pass
2.710000	36.40	N	Pass

Average (RBW: 9 kHz)

Frequency [MHz]	U [dBµV]	Line	Result
0.195000	27.50	N	Pass
0.395000	26.80	N	Pass
0.590000	26.00	N	Pass
0.985000	22.00	N	Pass
1.580000	20.10	N	Pass
2.060000	20.80	L1	Pass
2.070000	20.10	L1	Pass
2.140000	22.00	L1	Pass
2.200000	24.70	N	Pass
2.485000	26.70	N	Pass
2.565000	26.90	N	Pass

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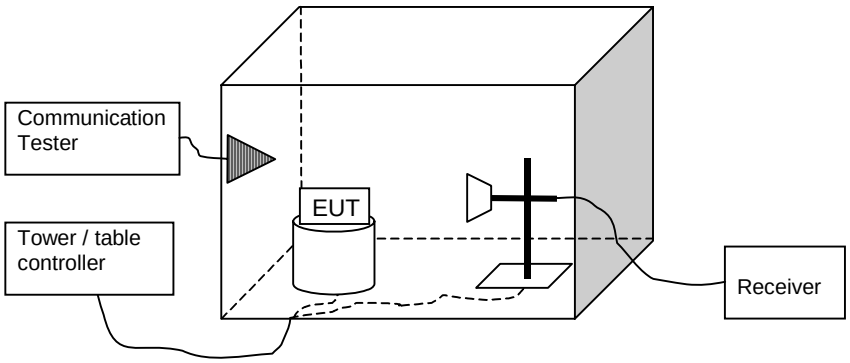
3. Radiated emissions

(FCC §15.109, ICES-003 section 5.5, RSS-132 4.6, RSS-133 6.6, RSS-139 6.6)

EUT with DUT number	RM-462 DUT 30552,
Accessories with DUT numbers	BP-4L DUT 26955, AC-4U DUT 26948, CA-101 DUT 26944, T-43 DUT 29203
Operation Voltage [V] / [Hz]	115 / 60
Result	Passed
Remarks	Continuous data transfer was active between the phone and the computer during the test.
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	21.9 / 51,5 100.87
Date of measurements	04-Sep-2008
Measured by	Christian Andersen

3.1. Test setup



3.2. Test method and limit

The measurement is made according to ANSI C63.4-2003as follows:

The measurement is performed in the Semi-Anechoic Chamber with conducting metal floor.

The measurement distance is 3 m.

The EUT is placed on a nonconductive plate at 80 cm height.

For each suspected frequency, the turntable is rotated 360 degrees and antenna is scanned from 1 to 4 m. This is repeated for both horizontal and vertical receive antenna polarizations.

The emissions less than 20 dB below the permissible value are reported.

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The measurement results are obtained as described below:

$E\ [\mu V/m] = U_{RX} + A_{TOT}$

Where U_{RX} is receiver reading and A_{TOT} is total correction factor including cable loss, antenna factor and preamplifier gain ($A_{TOT} = L_{CABLES} + AF - G_{PREAMP}$).

CISPR 22 and FCC Part 15 Class B limits (3 m measurement distance)

Frequency range [MHz]	Quasi peak limit [dBµV/m]	Average limit [dBµV/m]	Peak limit [dBµV/m]
30 – 230	40	-	-
230 – 1000	47	-	-
Above 1000	-	54	74

3.3. GSM 1900 Test results

RX mode, channel 512 / 1930.2 MHz

Peak (RBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
3860.000000	37.10	71.61	39.60	-2.5	HORIZONTAL	Passed
7720.000000	42.60	134.90	33.10	9.5	VERTICAL	Passed

Average (RBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
3860.000000	24.00	15.85	26.50	-2.5	HORIZONTAL	Passed
7720.000000	29.40	29.51	19.90	9.5	VERTICAL	Passed

RX mode, channel 661 / 1960.0 MHz

Quasi peak (RBW: 120 kHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
31.442886	41.30	116.14	55.00	-13.7	VERTICAL	Passed
38.516834	33.90	49.55	52.10	-18.2	VERTICAL	Passed
50.621844	26.20	20.42	52.50	-26.3	VERTICAL	Passed
80.820040	14.20	5.13	40.30	-26.1	VERTICAL	Passed
879.557515	17.10	7.16	28.90	-11.8	VERTICAL	Passed

Peak (RBW: 1 MHz, VBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
1959.919840	66.50	2113.49	69.50	-3.0	VERTICAL	Passed

*1960.0 MHz frequency is coming from communication tester and thus ignored.

Average (RBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
1600.706413	27.30	23.17	32.10	-4.8	VERTICAL	Passed
1615.232465	26.20	20.42	30.60	-4.4	HORIZONTAL	Passed
1959.919840	65.90	1972.42	68.90	-3.0	VERTICAL	Passed
2295.089178	37.70	76.74	37.70	0.0	VERTICAL	Passed
2986.967936	34.50	53.09	28.70	5.8	VERTICAL	Passed

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RX mode, channel 810 / 1989.8 MHz

Peak (RBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
3980.000000	36.30	65.31	38.70	-2.4	HORIZONTAL	Passed
7960.000000	42.80	138.04	32.30	10.5	VERTICAL	Passed

Average (RBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
3980.000000	23.70	15.31	26.10	-2.4	HORIZONTAL	Passed
7960.000000	30.30	32.73	19.80	10.5	HORIZONTAL	Passed

3.4. Bluetooth Test results

TX mode, channel 0 / 2402 MHz

Peak (RBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
4804.000000	35.50	59.57	35.40	0.1	HORIZONTAL	Passed
7206.000000	41.60	120.23	32.70	8.9	VERTICAL	Passed

Average (RBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
4804.000000	22.60	13.49	22.50	0.1	HORIZONTAL	Passed
7206.000000	28.80	27.54	19.90	8.9	VERTICAL	Passed

TX mode, channel 40 / 2442 MHz

Quasi peak (RBW: 120 kHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
38.076353	27.70	24.27	45.60	-17.9	VERTICAL	Passed
111.601603	17.90	7.85	42.90	-25.0	VERTICAL	Passed
121.282766	24.60	16.98	49.30	-24.7	HORIZONTAL	Passed
126.573347	27.90	24.83	53.10	-25.2	HORIZONTAL	Passed
240.080361	26.20	20.42	50.90	-24.7	HORIZONTAL	Passed

Peak (RBW: 1 MHz, VBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
7303.099198	42.80	138.04	33.40	9.4	VERTICAL	Passed
7312.617234	42.70	136.46	33.50	9.2	VERTICAL	Passed
7424.349699	43.30	146.22	33.90	9.4	VERTICAL	Passed
7426.355711	43.40	147.91	34.00	9.4	VERTICAL	Passed
17474.447896	51.70	384.59	28.70	23.0	HORIZONTAL	Passed
17934.865731	57.90	785.24	29.20	28.7	VERTICAL	Passed

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Average (RBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
7300.099198	30.00	31.62	20.50	9.5	VERTICAL	Passed
7305.617234	30.00	31.62	20.60	9.4	VERTICAL	Passed
7423.349699	30.40	33.11	21.00	9.4	VERTICAL	Passed
7426.355711	30.40	33.11	21.00	9.4	VERTICAL	Passed
17476.447896	39.10	90.16	16.10	23.0	HORIZONTAL	Passed
17935.365731	45.00	177.83	16.30	28.7	VERTICAL	Passed

TX mode, channel 78 / 2480 MHz

Peak (RBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
4960.000000	36.10	63.83	35.80	0.3	VERTICAL	Passed
7440.000000	43.10	142.89	33.60	9.5	VERTICAL	Passed

Average (RBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
4960.000000	23.70	15.31	23.40	0.3	HORIZONTAL	Passed
7440.000000	29.90	31.26	20.40	9.5	VERTICAL	Passed

3.5. WLAN Test results

TX mode, channel 1 / 2412 MHz

Peak (RBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
4824.000000	36.20	64.57	36.20	0.0	VERTICAL	Passed
7236.000000	42.80	138.04	33.80	9.0	VERTICAL	Passed

Average (RBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
4824.000000	23.40	14.79	23.40	0.0	VERTICAL	Passed
7236.000000	30.10	31.99	21.10	9.0	VERTICAL	Passed

TX mode, channel 7 / 2442 MHz

Quasi peak (RBW: 120 kHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
37.676353	25.20	18.20	42.80	-17.6	VERTICAL	Passed
73.686573	19.00	8.91	45.90	-26.9	VERTICAL	Passed
265.532064	18.30	8.22	42.00	-23.7	VERTICAL	Passed

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Peak (RBW: 1 MHz, VBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
2378.198397	51.70	384.59	50.30	1.4	VERTICAL	Passed
7329.161323	43.20	144.54	34.20	9.0	VERTICAL	Passed
7425.853707	43.40	147.91	34.00	9.4	VERTICAL	Passed
7431.361723	44.20	162.18	34.80	9.4	VERTICAL	Passed
17475.951904	52.70	431.52	29.70	23.0	VERTICAL	Passed
17900.305611	59.20	912.01	30.20	29.0	HORIZONTAL	Passed

Average (RBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
2377.198397	37.90	78.52	36.50	1.4	VERTICAL	Passed
7332.661323	30.20	32.36	21.10	9.1	VERTICAL	Passed
7424.353707	30.70	34.28	21.30	9.4	VERTICAL	Passed
7428.861723	30.70	34.28	21.30	9.4	VERTICAL	Passed
17478.451904	39.30	92.26	16.40	22.9	VERTICAL	Passed
17901.805611	45.80	194.98	16.80	29.0	HORIZONTAL	Passed

TX mode, channel 11 / 2462 MHz

Peak (RBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
4924.000000	37.30	73.28	37.00	0.3	VERTICAL	Passed
7386.000000	42.20	128.82	32.70	9.5	VERTICAL	Passed

Average (RBW: 1 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U_{RX} [dBµV]	A_{TOT} [dB]	Polarisation	Result
4924.000000	24.00	15.85	23.70	0.3	VERTICAL	Passed
7386.000000	29.90	31.26	20.40	9.5	VERTICAL	Passed

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4. Test Equipment

4.1. Conducted measurements

Eq. No	Equipment	Type	Manufacturer	Used in
13037	Power Supply 0-15V 10A	EA3012	LP Instruments	15C, 15B
13513	Pulse Limiter 9KHz-30MHz	ESH3Z2	Rohde&Schwarz	15C, 15B
13666	EMI Test Reciever 9KHz-2,5GHz	ESPC	Rohde&Schwarz	15C, 15B
13935	Two Lines Artificial Mains Network	ESH3-Z5	Rohde&Schwarz	15C, 15B
16995	Directional Coupler 20dB 0,5-2,0 GHz SMA Conn.	1538RA-20	Weinschel	15C, 15B
18772	Shielded Chamber	RFD-100	ETS-Lindgren	15C, 15B
19171	Universal Radio Communication Tester	CMU200	Rohde&Schwarz	15C, 15B
11386	System DC Power Supply	HP6632A	Hewlett Packard	22/24/27, 15C, 15B
19678	Spectrum Analyzer 26 GHz	FSP	Rohde&Schwarz	22/24/27, 15C, 15B
16601	Universal Radio Communication Tester	CMU200	Rohde&Schwarz	22/24/27, 15C, 15B
19625	Vötsch Climatic Chamber	VT4002EMC	Vötsch	22/24/27, 15C, 15B
13357	Rohde & Schwartz Signal Generator	SMP02	Rohde&Schwarz	22/24/27, 15C, 15B
20168	Bluetooth EDR Tester	CBT	Rohde&Schwarz	22/24/27, 15C, 15B

4.2. Radiated measurements

Eq. No	Equipment	Type	Manufacturer	Used in
18416	Universal Radio Communication Tester	CMU200	Rohde&Schwarz	22/24/27, 15C, 15B
	Programmable Relay Switching System	----------	Pickering	22/24/27, 15C, 15B
15742	Programmable Relay Switching System	----------	Pickering	22/24/27, 15C, 15B
14020	Power Supply Module Relay Switching System 45W	10-910-002	Pickering	22/24/27, 15C, 15B
15743	Power Supply Module Relay Switching System 50W	10-910L-001	Pickering	22/24/27, 15C, 15B
16490	RS-232/IEEE-488.2 Interface	10-921-001	Pickering	22/24/27, 15C, 15B
	RS-232/IEEE-488.2 Interface	10-921-001	Pickering	22/24/27, 15C, 15B
20078	Relay 2x6 Chnl µWave Mux	10-785B-522	Pickering	22/24/27, 15C, 15B
14021	Relay Dual 6 Chnl µWave Mux	10-785-522		22/24/27, 15C, 15B
	Relay Dual 6 Chnl µWave Mux	10-785-522		22/24/27, 15C, 15B
17644	Dual 6 Channel MUX Microwave Relay SMA 50 Ohm	10-785-522	Pickering	22/24/27, 15C, 15B
16948	Dual 6 Channel MUX Microwave Relay SMA 50 Ohm	10-785-522	Pickering	22/24/27, 15C, 15B
16949	Dual 6 Channel MUX Microwave Relay SMA 50 Ohm	10-785-522	Pickering	22/24/27, 15C, 15B
18792	Multi Device Controller	2090	ETS-EMCO	22/24/27, 15C, 15B
14963	RF Preamplifier 100MHz-4GHz (Metal Chassis)	AFS3-00100400	Miteq/NMP Cph	22/24/27, 15C, 15B
18861	EMI Test Receiver 20Hz-26,5GHz	ESI	Rohde&Schwarz	22/24/27, 15C, 15B
20335	Ultra Broadband Antenna Ultralog 30-3000MHz	HL562	Rohde&Schwarz	22/24/27, 15C, 15B
18773	Shielded Chamber	RFD-100	ETS-Lindgren	22/24/27, 15C, 15B
18774	Shielded Chamber	RFSD-F/A-100	ETS-Lindgren	22/24/27, 15C, 15B
19151	High Pass Filter 3GHz	WHJS3000-10SS	Wainwright	22/24/27, 15C, 15B

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Eq. No	Equipment	Type	Manufacturer	Used in
	WHK3.0/18G-10ss			
13937	Ultra Stable Notch Filter 850MHz	WRCA902.4-0.2/40-6SS	Wainwright Instruments	22/24/27, 15C, 15B
13936	Ultra Stable Notch Filter 1747,5MHz	WRCD1747.5-0.2/40-10SS	Wainwright Instruments	22/24/27, 15C, 15B
14114	Highpass filter	WHK1000-12SS	Wainwright Instruments	22/24/27, 15C, 15B
14188	Ultra Stable Notch Filter 902,4MHz	WRCA902.4-0.2/40-6SS	Wainwright	22/24/27, 15C, 15B
14187	Ultra Stable Notch Filter 1747,5MHz	WRCD1747.5-0.2/40-10SS	Wainwright	22/24/27, 15C, 15B
16633	Ultra Stable Notch Filter 1880,0MHz	WRCD1880.0-0.2/40-10SS	Wainwright	22/24/27, 15C, 15B
19587	BT/WLAN Band Reject Filter	WRCG2400/2483-2390/2493-35/10SS	Wainwright	22/24/27, 15C, 15B
20115	WDCMA Band 2 filter		Wainwright	24, 15C, 15B
20114	WDCMA Band 4 filter	WRCG1737/1743-1733/1747-40/6SS	Wainwright	27, 15C, 15B
20116	WDCMA Band 5&6 filter	WRCG832/83/-825/845-40/5SS	Wainwright	22, 15C, 15B
18323	Band reject filter 1947-1953MHz 40dB	WRCG1947/1953-1940/1960-40/6SS	Wainwright	22/24/27, 15C, 15B
20031	Double Ridged Broadband Horn	BBHA 9120 D	SCHWARZBECK	22/24/27, 15C, 15B
19966	Magnetic Loop Antenna 9 kHz - 30 MHz	HFH2-Z2	Rohde&Schwarz	15C, 15B
14993	EMI Test Receiver 9KHz-2750MHz	ESCS30	Rohde&Schwarz	22/24/27, 15C, 15B
15191	Turntable Contoller Unit	G-800SDX	YAESU	22/24/27, 15C, 15B
14900	Antenna Controller	HD100	HD GmbH	22/24/27, 15C, 15B
19374	Resonant Dipole Antenna 850MHz SMA m Conn.	---------	NMP Cph	22/24/27, 15C, 15B
19375	Resonant Dipole Antenna 1900MHz SMA m Conn.	----------	NMP Cph	22/24/27, 15C, 15B
20168	Bluetooth EDR Tester	CBT	Rohde&Schwarz	22/24/27, 15C, 15B

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