

EXHIBIT10  
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APPLICANT:  
Ericsson Radio Systems AB

FCC ID NO.  
B5KKRC13149-15

EXHIBIT 10 - COVER SHEET

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## 2.1033 (c)(10) Function of Active Circuit Devices

## Function Block Transmitter (Part of 1911- ROF 117 9343/1)

T501	TRANSFORMER/SMD TRANSFORMER 4:1	REG 135 55/1
T502	BALUN/1900 MHZ 100 OHM	REG 735 58/12
T503	BALUN/1900 MHZ 100 OHM	REG 735 58/12
T504	BALUN/1900 MHZ 100 OHM	REG 735 58/12
T505	BALUN/1900 MHZ 100 OHM	REG 735 58/12
T506	BALUN/1900 MHZ 100 OHM	REG 735 58/12
T601	BALUN/1900 MHZ 100 OHM	REG 735 58/12
T602	BALUN/1900 MHZ 100 OHM	REG 735 58/12
V400	TRANSISTOR/BCP56-10	RYN 121 637/1
V407	TRANSISTOR/SI.AF TRANS.PNP,SOT-223	RYN 120 615/1
V1502	TRANSISTOR/ACTIVE BIAS CONTR.SOT-343	RYN 121 6087/1
V1503	TRANSISTOR/LOW NOISE WIDEBAND TRANSISTOR.	RYN 121 6124/1
V1505	TRANSISTOR/ACTIVE BIAS CONTR.SOT-343	RYN 121 6087/1
V1506	TRANSISTOR/LOW NOISE WIDEBAND TRANSISTOR.	RYN 121 6124/1
V1507	TRANSISTOR/SOT-23 BCX71J	RYN 120 614/1
V1508	TRANSISTOR/SOT-23 BCX71J	RYN 120 614/1
V1509	TRANSISTOR/UHF POWER	RYN 121 6125/1
X501	FILTER/1880 BW=30MHZ	RTN 202 709/02
X601	FILTER/160MHZ	RTN 201 768/02
X602	FILTER/FIL-CER PCS RX 1960 MHZ	RTN 202 841/01
X603	FILTER/FIL-CER PCS RX 1960 MHZ	RTN 202 841/01
X604	FILTER/1800MHZ	RTN 202 803/01
N1501	MICROCIRCUIT/MC34072	RYT 101 6076/1C
Z401	MICROCIRCUIT/IC ASIC TRACY	ROP 101 669/1C
Z402	MICROCIRCUIT/1485 RS485 LINE TRANSCEIVER	RYT 109 6071/2
Z403	MICROCIRCUIT/REF02	RYT 113 6024/1C
Z404	MICROCIRCUIT/LP2951A	RYT 113 6005/2C
Z405	MICROCIRCUIT/SYNTH GSM 1900 TX	RYT 901 6069/6
Z406	MICROCIRCUIT/LP2951A	RYT 113 6005/2C
Z407	MICROCIRCUIT/160MHZ	RYT 901 6156/1
Z411	MICROCIRCUIT/SYNTH GSM 1900 TX	RYT 901 6069/6
Z414	MICROCIRCUIT/MAX664	RYT 113 6063/1
Z501	PROD. ADAPT. CIRCUIT/ASIC DIESEL	ROP 101 1080/C
Z601	MICROCIRCUIT/ASIC LOKE	ROP 101 693
Z602	MICROCIRCUIT/MC34072	RYT 101 6076/1C
Z1501	FILTER/FIL-CER PCS RX 1960 MHZ	RTN 202 841/01
Z1502	MICROCIRCUIT/AV102-10, VARIABLE ATTENUATOR	RYT 115 6029/1
Z1503	FILTER/FIL-CER PCS RX 1960 MHZ	RTN 202 841/01
Z1504	MICROCIRCUIT/AV102-10, VARIABLE ATTENUATOR	RYT 115 6029/1

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2.1033 (c)(10) Function of Active Circuit Devices

Function Block Receiver (Part of 1911- ROF 117 9343/1)

D801	REGULATOR DIODE/6.8V, 0.225W, SOT-23	RKZ 223 01/12
D802	DIODE/BA592, RF SWITCHING, SOD-323	RKZ 123 630/1
D803	DIODE/BA592, RF SWITCHING, SOD-323	RKZ 123 630/1
L700	CHOKE/470NH 0.47A 1008	REG 704 123/47
L701	CHOKE/18NH 1A 1008	REG 704 122/18
L702	CHOKE/18NH 1A 1008	REG 704 122/18
L703	CHOKE/4.7UH 0.26A 1008	REG 704 124/47
L704	CHOKE/4.7UH 0.26A 1008	REG 704 124/47
L800	CHOKE/220NH 10% 400MA SMD	REG 704 213/22
L804	INDUCTOR/3,3NH +/-0,3NH 0805	REG 704 4731/33
L808	CHOKE/220NH 10% 400MA SMD	REG 704 213/22
L809	INDUCTOR/3,3NH +/-0,3NH 0805	REG 704 4731/33
L900	CHOKE/220NH 10% 400MA SMD	REG 704 213/22
L901	CHOKE/27NH 2% 1A 1008	REG 704 1252/27
L903	CHOKE/27NH 2% 1A 1008	REG 704 1252/27
L904	CHOKE/33NH 2% 1A 1008	REG 704 1252/33
L906	CHOKE/33NH 2% 1A 1008	REG 704 1252/33
L907	CHOKE/27NH 2% 1A 1008	REG 704 1252/27
L909	CHOKE/27NH 2% 1A 1008	REG 704 1252/27
L910	CHOKE/33NH 2% 1A 1008	REG 704 1252/33
L912	CHOKE/33NH 2% 1A 1008	REG 704 1252/33
T800	TRANSFORMER/BALUN 50/50 OHM 1880 MHZ	REG 135 58/5
T801	TRANSFORMER/BALUN 50/50 OHM 1880 MHZ	REG 135 58/5
T802	TRANSFORMER/SMD TRANSFORMER	REG 135 55/7
T803	TRANSFORMER/SMD TRANSFORMER	REG 135 55/7
T900	TRANSFORMER/SMD TRANSFORMER 4:1	REG 135 55/1
X801	FILTER/1880 BW=30MHZ	RTN 202 709/02
X802	FILTER/1880 BW=30MHZ	RTN 202 709/02
X900	FILTER/201.000MHZ	RTN 201 851/02
X901	FILTER/201.000MHZ	RTN 201 851/02
Z800	MICROCIRCUIT/IC ASIC ULLA II	ROP 101 664/C
Z801	MICROCIRCUIT/SYNTH GSM 1900 RX	RYT 901 6068/6
Z802	MICROCIRCUIT/SYNTH GSM 1900 RX	RYT 901 6068/6
Z803	MICROCIRCUIT/MAX664	RYT 113 6063/1
Z804	MICROCIRCUIT/LOW DROPOUT 5V POS VOLT REG	RYT 113 6091/3
Z806	MICROCIRCUIT/SERIAL DIGITAL OUTPUT THERM.	RYT 124 6013/1

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Z807	MICROCIRCUIT/7S04 INVERTER	SSOP5-P	RYT 326 6004/C
Z808	MICROCIRCUIT/7S04 INVERTER	SSOP5-P	RYT 326 6004/C
Z900	MICROCIRCUIT/RYT 901 6148/1		RYT 901 6148/1
Z901	PROD. ADAPT. CIRCUIT/ASIC QIM		ROP 101 1115/C
Z902	MICROCIRCUIT/2951-03		RYT 113 6076/2
Z903	MICROCIRCUIT/LP2951A		RYT 113 6005/2C
Z1000	MICROCIRCUIT/2951-03		RYT 113 6076/2
Z1001	MICROCIRCUIT/2951-03		RYT 113 6076/2
Z1002	MICROCIRCUIT/1485 RS485 LINE TRANSCEIVER		RYT 109 6071/2
Z1003	MICROCIRCUIT/CMOS SIGMA DELTA MODULATOR		RYT 120 6061/1
Z1004	MICROCIRCUIT/CMOS SIGMA DELTA MODULATOR		RYT 120 6061/1
Z1005	MICROCIRCUIT/CMOS SIGMA DELTA MODULATOR		RYT 120 6061/1
Z1006	MICROCIRCUIT/CMOS SIGMA DELTA MODULATOR		RYT 120 6061/1
Z1100	PROD. ADAPT. CIRCUIT/ASIC QBIQ		ROP 101 1135
Z1105	MICROCIRCUIT/EEPROM 8K8 SPI 2.7V-5.5 I		RYT 118 6058/2

2.1033 (c)(10) Function of Active Circuit Devices

Function Block Digital (Part of 1911- ROF 117 9343/1)

Z4	FUNCTIONAL COMPONENT/DSP GLUE ASIC		RON 107 885
Z5	MICROCIRCUIT/DSP 1620		RYT 134 6014/C
Z6	MICROCIRCUIT/DSP 1620		RYT 134 6014/C
Z7	MICROCIRCUIT/DSP 1620		RYT 134 6014/C
Z8	MICROCIRCUIT/3384 10X BUS SWITCH		RYT 109 6094/2C
Z9	MICROCIRCUIT/3384 10X BUS SWITCH		RYT 109 6094/2C
Z10	MICROCIRCUIT/3384 10X BUS SWITCH		RYT 109 6094/2C
Z11	MICROCIRCUIT/3384 10X BUS SWITCH		RYT 109 6094/2C
Z12	MICROCIRCUIT/74LCX245 8 X BUS TRANSCEIVER T		RYT 334 0245/2C
Z13	MICROCIRCUIT/74LCX245 8 X BUS TRANSCEIVER T		RYT 334 0245/2C
Z15	OSCILLATOR/26.000MHZ		RTL 202 610/02
Z16	MICROCIRCUIT/75ALS176B RS485 TRANSCEIVER		RYT 109 6071/1
Z17	MICROCIRCUIT/75ALS176B RS485 TRANSCEIVER		RYT 109 6071/1
Z18	MICROCIRCUIT/75ALS176B RS485 TRANSCEIVER		RYT 109 6071/1
Z19	MICROCIRCUIT/75ALS176B RS485 TRANSCEIVER		RYT 109 6071/1
Z20	MICROCIRCUIT/75ALS176B RS485 TRANSCEIVER		RYT 109 6071/1
Z21	MICROCIRCUIT/75ALS176B RS485 TRANSCEIVER		RYT 109 6071/1
Z22	MICROCIRCUIT/75176		RYT 109 6043/1C
Z23	MICROCIRCUIT/75176		RYT 109 6043/1C
Z24	MICROCIRCUIT/75176		RYT 109 6043/1C
Z25	MICROCIRCUIT/75176		RYT 109 6043/1C

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Z26	MICROCIRCUIT/75175 4X RS485 LINE RECEIVER	RYT 109 6042/1C
Z27	MICROCIRCUIT/BUFFER,OCTAL,74LVC244	RYT 331 0244/3C
Z29	MICROCIRCUIT/74HC00 SO	RYT 306 2001/C
Z30	MICROCIRCUIT/BUFFER,OCTAL,74LVC244	RYT 331 0244/3C
Z31	MICROCIRCUIT/BUFFER,OCTAL,74LVC244	RYT 331 0244/3C
Z32	MICROCIRCUIT/BUFFER,OCTAL,74LVC244	RYT 331 0244/3C
Z33	MICROCIRCUIT/74ACT174 6XD FF WITH MR	RYT 319 0174/C
Z35	MICROCIRCUIT/74'08 ACT 4X2-INP AND GATE	RYT 317 6008/2C
Z36	MICROCIRCUIT/74AC74 2XD FLIP-FLOP	RYT 318 0074/C
Z37	MICROCIRCUIT/74AC04 6X1 INVERTER	RYT 318 0004/C
Z38	MICROCIRCUIT/LP2951A	RYT 113 6005/2C
Z39	MICROCIRCUIT/LP2951A	RYT 113 6005/2C
Z40	FUNCTIONAL CIRCUIT/TRUD PLD1	RON 107 618
Z41	FUNCTIONAL CIRCUIT/TRUD PLD7	RON 107 628
Z42	OSCILLATOR/50MHZ SMD 5*7 3.3V TTL	RTL 201 629/01
Z43	MICROCIRCUIT/LT1016 VOLTAGE COMPARATOR	RYT 101 051/C
Z44	MICROCIRCUIT/LT1016 VOLTAGE COMPARATOR	RYT 101 051/C
Z45	MICROCIRCUIT/MC34072	RYT 101 6076/1C
Z46	MICROCIRCUIT/PMB2306T	RYT 101 6148/2C
Z48	MEMORY SET/TRUD PROM1	RON 107 353
Z49	MICROCIRCUIT/DRAM 4M4 50NS 3.3V EDO C	RYT 119 6126/1
Z50	MICROCIRCUIT/DRAM 4M4 50NS 3.3V EDO C	RYT 119 6126/1
Z51	MICROCIRCUIT/DRAM 4M4 50NS 3.3V EDO C	RYT 119 6126/1
Z52	MICROCIRCUIT/DRAM 4M4 50NS 3.3V EDO C	RYT 119 6126/1
Z53	MICROCIRCUIT/DRAM 2M8 50NS 3.3V EDO C	RYT 119 6125/1
Z54	MICROCIRCUIT/DRAM 2M8 50NS 3.3V EDO C	RYT 119 6125/1
Z55	MICROCIRCUIT/DRAM 2M8 50NS 3.3V EDO C	RYT 119 6125/1
Z56	MICROCIRCUIT/DRAM 2M8 50NS 3.3V EDO C	RYT 119 6125/1
Z58	MICROCIRCUIT/SRAM 64K16 12NS 5.0V C	RYT 119 6039/10
Z60	MICROCIRCUIT/44-PLCC 82525	RYT 121 6016/2C
Z61	MICROCIRCUIT/44-PLCC 82525	RYT 121 6016/2C
Z62	MICROCIRCUIT/29243-25 3.3V E2	RYT 123 6040/7C
Z63	MICROCIRCUIT/IC ASIC ASTRA	ROP 101 675/C
Z64	MICROCIRCUIT/IC ASIC TORA	ROP 101 661/6C
Z66	MICROCIRCUIT/MAX809 RESET CIRCUIT 4.63V	RYT 113 049/C
Z67	MICROCIRCUIT/MAX809T RESET CIRCUIT 3.08V	RYT 113 049/4C
Z68	MICROCIRCUIT/7SZ08 2-INP AND GATE	RYT 326 6008/41C
Z69	MICROCIRCUIT/SRAM 64K16 15NS 3.3V C	RYT 119 6039/07
Z70	MICROCIRCUIT/7ST08 2-INP AND GATE	RYT 326 6008/T1C
Z71	RELAY/RELAY SLOID STATE 2FORM SMD	RAV 947 28/1
Z72	MICROCIRCUIT/FLASH 1M8 120NS 3.3V S I	RYT 118 6093/2C
Z73	MICROCIRCUIT/FLASH 1M8 120NS 3.3V S I	RYT 118 6093/2C
Z74	MICROCIRCUIT/FLASH 1M8 120NS 3.3V S I	RYT 118 6093/2C

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Z75	MICROCIRCUIT/FLASH 1M8 120NS 3.3V S I	RYT 118 6093/2C
Z76	MICROCIRCUIT/74'541 HC 8X BUS BUFFER 3S	RYT 306 6039/2C
Z77	MICROCIRCUIT/74'541 HC 8X BUS BUFFER 3S	RYT 306 6039/2C
Z78	MICROCIRCUIT/74'541 HC 8X BUS BUFFER 3S	RYT 306 6039/2C
Z79	MICROCIRCUIT/74AC04 6X1 INVERTER	RYT 318 0004/C
Z80	MICROCIRCUIT/8584 I2C-BUS CONTROLLER	RYT 125 6010/C

## 2.1033 (c)(10) Function of Active Circuit Devices

Function Block DC/DC (Part of 1911- ROF 117 9343/1)

D1301	MICROCIRCUIT/LM431 ADJ REGULATOR	RYT 113 008/3C
D1302	REGULATOR DIODE/DIODE ZE15V 5% 0.2W SOT23	RKZ 223 01/20
D1303	REGULATOR DIODE/8.2V, 0.225W, SOT-23	RKZ 223 01/14
L1301	TRANSFORMER/	REG 254 2417
L1302	TRANSFORMER/	REG 254 2407
L1303	TRANSFORMER/	REG 254 2406
L1304	INDUCTOR/FILTER-	REG 603 202/1
L1311	TRANSFORMER/	REG 254 2417

## 2.1033 (c)(10) Function of Active Circuit Devices

Printed Circuit Board, PBU (1911-ROA 117 9348/2)

A1	PRINTED BOARD/PBU 1900	TVK 117 9048
D1	MICROCIRCUIT/PW-CONTROLLER	RYT 113 006/4C
D2	MICROCIRCUIT/LM6511 3V COMPARATOR	RYT 101 083/C
D3	MICROCIRCUIT/PW-CONTROLLER	RYT 113 006/4C
D4	MICROCIRCUIT/LM431 ADJ REGULATOR	RYT 113 008/3C
D5	MICROCIRCUIT/LM431 ADJ REGULATOR	RYT 113 008/3C
D6	MICROCIRCUIT/LM239	RYT 101 6121/2C
D101	MICROCIRCUIT/CURRENT-MODE PWM	RYT 113 6053/4
D102	MICROCIRCUIT/RAIL-TO-RAIL OPAMP	RYT 101 130/C
N201	MICROCIRCUIT/QUAD 8-BIT NONVOLATILE DACPOT	RYT 120 6071/1
N202	MICROCIRCUIT/AV102-10, VARIABLE ATTENUATOR	RYT 115 6029/1
N203	MICROCIRCUIT/RF2125P	RYT 101 6870/1
N206	MICROCIRCUIT/LM337	RYT 113 6023/1C
N207	MICROCIRCUIT/OP-AMPLIFIER	RYT 101 030/C
N208	MICROCIRCUIT/EEPROM 8K8 SPI 2.7V-5.5 I	RYT 118 6058/2
N209	MICROCIRCUIT/TEMP. SENSOR FAHERNHEIT	RYT 124 6015/1
N301	MICROCIRCUIT/MC33077	RYT 101 6072/2C
N302	MICROCIRCUIT/MC33077	RYT 101 6072/2C
M201	CIRCULATOR/PILL, 1930-1990MHZ	KRY 101 1540/2

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T1	TRANSFORMER/	REG 254 2401
T2	TRANSFORMER/	REG 254 2401
T101	TRANSFORMER/	REG 544 2302
V1	DIODE/BAS16,HIGH SPEED,SOT-23	RKZ 123 612
V7	TRANSISTOR/SI.AF TRANS.PNP,SOT-223	RYN 120 615/1
V9	DIODE/DUAL SWITCHING, COMMON CATHODE	RKZ 123 03/3
V10	TRANSISTOR/POWER MOSFET,D-PAK	RYN 122 657/1
V11	TRANSISTOR/POWER MOSFET,D-PAK	RYN 122 657/1
V14	TRANSISTOR/SOT-23 BCX71J	RYN 120 614/1
V15	REGULATOR DIODE/5.6V, 0.225W, SOT-23	RKZ 223 01/10
V16	TRANSISTOR/SIL.AF TRANSIST.NPN, SOT23	RYN 121 6068/1
V17	DIODE/DUAL SWITCHING, IN SERIES	RKZ 123 03/1
V18	REGULATOR DIODE/3.9V, 0.225W, SOT-23	RKZ 223 01/6
V19	TRANSISTOR/SIL.AF TRANSIST.NPN, SOT23	RYN 121 6068/1
V20	TRANSISTOR/SOT-23 BCX71J	RYN 120 614/1
V21	REGULATOR DIODE/10V, 0.225W, SOT-23	RKZ 223 01/16
V22	TRANSISTOR/SOT-23 BCX71J	RYN 120 614/1
V23	REGULATOR DIODE/5.6V, 0.225W, SOT-23	RKZ 223 01/10
V24	TRANSISTOR/BCP56-16	RYN 121 637/2
V25	TRANSISTOR/NCH 60V 50A TO263 LOG LEVEL	RYN 123 24/1
V30	TRANSISTOR/SOT-23 BCX71J	RYN 120 614/1
V33	TRANSISTOR/SIL.AF TRANSIST.NPN, SOT23	RYN 121 6068/1
V34	REGULATOR DIODE/DIOD ZE15V 5% 0.2W SOT23	RKZ 223 01/20
V38	TRANSISTOR/SIL.AF TRANSIST.NPN, SOT23	RYN 121 6068/1
V39	TRANSISTOR/SOT-23 BCX71J	RYN 120 614/1
V41	REGULATOR DIODE/10V, 0.225W, SOT-23	RKZ 223 01/16
V42	TRANSISTOR/D-PAK IRFR120	RYN 123 617/1
V101	TRANSISTOR/SIL.AF TRANSIST.NPN, SOT23	RYN 121 6068/1
V102	DIODE/BAS16,HIGH SPEED,SOT-23	RKZ 123 612
V103	TRANSISTOR/D-PAK IRFR120	RYN 123 617/1
V109	TRANSISTOR/SIL.AF TRANSIST.NPN, SOT23	RYN 121 6068/1
V110	TRANSISTOR/SIL.AF TRANSIST.NPN, SOT23	RYN 121 6068/1
V201	DIODE/DUAL SWITCHING, IN SERIES	RKZ 123 03/1
V205	TRANSISTOR/SOT-23 BCX70J	RYN 121 629/1
V302	TRANSISTOR/SOT-23 BCX70J	RYN 121 629/1
V303	TRANSISTOR/SOT-23 BCX70J	RYN 121 629/1
V304	TRANSISTOR/SOT-23 BCX70J	RYN 121 629/1
V306	TRANSISTOR/SOT-23 BCX70J	RYN 121 629/1
V307	TRANSISTOR/SOT-23 BCX70J	RYN 121 629/1
V308	TRANSISTOR/SOT-23 BCX70J	RYN 121 629/1
V309	TRANSISTOR/SOT-23 BCX71J	RYN 120 614/1
V310	TRANSISTOR/SOT-23 BCX71J	RYN 120 614/1
V311	TRANSISTOR/SOT-23 BCX71J	RYN 120 614/1
V312	TRANSISTOR/SOT-23 BCX71J	RYN 120 614/1
V313	TRANSISTOR/SOT-23 BCX71J	RYN 120 614/1
V314	TRANSISTOR/SOT-23 BCX71J	RYN 120 614/1

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TUNE-UP PROCEDURE

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2.1033 (c)(9) Tune-Up Procedure

All the necessary adjustments will be set in the factory, and no adjustments are needed. The output power level is remotely controlled by the Base Station Controller (BSC). If the TRU is not able to maintain the requirements for power output, frequency stability, etc an alarm is sent to the BSC. On severe faults the TRU will disable transmission.



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## CIRCUIT AND DEVICE DESCRIPTIONS

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### 2.1033 (c)(9,10) Power Tune-Up - Power Limiting

The TRU measures the output power at its output connector via a RF-detector and the detected value is used by the power loop control block to steer two variable gain amplifiers between the modulator and the power amplifier.

The transmitter contains three synthesized oscillators. One gives a 160 MHz signal to the I/Q modulator. The two other generate a 1770 to 1830 MHz signal to the mixer where the modulated signal is unconverted to the transmit frequency. Two oscillators are needed in frequency hopping mode, one is retuning while the other is active. All three synthesized oscillators have as reference a 13 MHz sinusoidal signal generated in a phase locked loop (PLL) in the TRU. The PLL is locked to a 270.8 kHz signal, which is generated and distributed, to all TRU in the basestation by the DXU (Distribution Switch Unit).

The frequency reference from DXU is generated in a voltage controlled oscillator placed in an oven which is frequency locked to a long term stable oven heated oscillator or as an option to the incoming PCM-link frequency.