EXHIBIT 6 Page 6.01 FCC ID NO. B5KKRC12103-31

6.01

# EXHIBIT 6 - COVER SHEET

Table of Contents EXHIBIT 6 - COVER SHEET RF POWER OUTPUT Method and Equ

RF POWER OUTPUT	
Method and Equipment	6.02
High Power Channel 2	6.03
High Power Channel 1000	6 04
High Dower Channel 1998	6 05
	0.05
Mothod and Equipment	6 06
Digital mode	6.00
	0.00
Method and Deviewent	C 07
	6.07
Continuous wave	< 0.0
Channel 2	6.08
Channel 1998	6.09
Bandwidth 26 dB points	
Channel 2	6.10
Channel 1998	6.11
Band edges	
Channel 2	6.12
Channel 1998	6.13
CONDUCTED SPURIOUS EMISSIONS	
Method and Equipment	6.14
Channel 2	6.15
Channel 2 with bandpass	6.16
Channel 1000	6.17
Channel 1000 with bandpass	6.18
Channel 1998	6.19
Channel 1998 with bandpass	6.20
RADIATED SPURIOUS EMISSIONS	
Method and Equipment	6 21
Channel 2	6 22
Channel 1009	6 22
	0.23
REQUENCI SIABILIII	6 24
	0.24
Supply Voltage 27.20 V	0.25
Supply Voltage 23.12 V	6.26
Supply Voltage 31.28 V	6.27

EXHIBIT 6 Page 6.02

FCC ID NO. B5KKRC12103-31

## RF POWER OUTPUT DIGITAL MODE

2.1046 (a) RF Power Output

The RF power output at the output terminal is plotted against supply voltage variation at the highest power level.

The measurement was made per TIA/IS-136/ IS-138 using the following Equipment.

Radio frequency 50 ohm load attached to the output. The power was measured on a BONTOON RF Peak power meter/analyzer.

FCC ID NO. B5KKRC12103-31

## RF POWER OUTPUT DIGITAL MODE

2.1046 (a) RF Power Output Power output versus Supply voltage Digital mode 50 45 40 Power output (dBm) 35 30 25 Date:2000-01-10 20 HW:KRC 121 03/31, P1D, A57002ANH5 SW:CXC-112 1368,R3D Channel 2 15 -24 26 27 28 22 23 30 31 Supply voltage (V)

Channel 2 Output Power 44.5 dBm

FCC ID NO. B5KKRC12103-31

## RF POWER OUTPUT DIGITAL MODE

2.1046 (a) RF Power Output Power output versus Supply voltage Digital mode 50 45 40 Power output (dBm) 35 30 25 Date:2000-01-10 20 HW:KRC 121 03/31, P1D. A57002ANH5 SW:CXC-112 1388,R3D Channel 1000 15 -24 26 27 28 30 22 23 31 Supply voltage (V)

> Channel 1000 Output Power 44.5 dBm

FCC ID NO. B5KKRC12103-31

## RF POWER OUTPUT DIGITAL MODE

2.1046 (a) RF Power Output Power output versus Supply voltage Digital mode 50 45 40 Power output (dBm) 35 30 25 Date:2000-01-10 20 HW:KRC 121 03/31, P1D. A57002ANH5 SW:CXC-112 1388,R3D Channel 1998 15 Т 24 26 27 28 30 22 23 31 Supply voltage (V)

Output Power 44.5 dBm

Channel 1998

EXHIBIT 6 Page 6.06

FCC ID NO. B5KKRC12103-31

#### MODULATION CHARACTERISTICS DIGITAL MODE

2.1047 (d) The modulation characteristics for the unit is measured with pseudorandom data modulation of the unit and the result is shown as the Error Vector Magnitude which is limited to 12.5 percent according to TIA/IS-136/IS-138 Output Power Freq. Error Vector Chan. (MHz) (Watts) Magnitude (%) 2 1930.08 28 3.76 1000 1960.02 28 3.96 1998 1989.96 28 3.37 Equipment used: Rohde & Schwarz ESI 40, EMI Test Receiver Including: Spectrum Analyzer, 20 Hz-40 GHz EMI Receiver, 20 Hz-40 GHz Option FSE-B7 Signal Vector Analysis The R&S ESI 40 was hooked up to a external 10 MHz reference standard during the measurements. The sync generator was hooked up to a 10 MHz reference standard from a HP89441 Vector Signal Analyzer during the measurements.

EXHIBIT 6 Page 6.07

FCC ID NO. B5KKRC12103-31

## OCCUPIED BANDWIDTH

2.1049 (c,1)(g) Occupied Bandwidth The measurement methods per TIA/IS-136/IS-138 were used. Equipment used: Rohde & Schwarz ESI 40, EMI Test Receiver Including: Spectrum Analyzer, 20 Hz-40 GHz EMI Receiver, 20 Hz-40 GHz Option FSE-B7 Signal Vector Analysis The input signal source was a R&S CMTA 54 Radiocommunication analyzer for analog mode. The input signal was fed trough a audio-PCMconverter named Claudio. Radio frequency 50 ohm load attached to the output.

EXHIBIT 6 Page 6.08

FCC ID NO. B5KKRC12103-31

# OCCUPIED BANDWIDTH CONTINUOUS WAVE

Modulation Sideband Spectrum Measured Per TIA/IS-136/IS-138 RF Att 0 dB Marker 1 [T1] RBW 1 MHz Ref Lvl 44.09 dBm VBW 1 MHz 51.9 dBm 1.93008000 GHz SWT 5 ms Unit dBm 50 61.9 dB Offset А 40 30 IN1 20 1MA 10 С -10 ulubuluh -20 -30 -40 Center 1.93008 GHz 1 MHz/ Span 10 MHz Date: 14.JAN.2000 14:39:13

Channel 2 / Carrier frequency = 1930.08 MHz Unmodulated

EXHIBIT 6 Page 6.09

FCC ID NO. B5KKRC12103-31

## OCCUPIED BANDWIDTH CONTINUOUS WAVE

Modulation Sideband Spectrum Measured Per TIA/IS-136/IS-138 RF Att 0 dB Marker 1 [T1] RBW 1 MHz Ref Lvl 44.14 dBm VBW 1 MHz 51.9 dBm 1.98999006 GHz SWT 5 ms Unit dBm 50 61.9 dB Offset А 40 30 IN1 20 1MA 10 С -10 fly whe -20 այիկ -30 -40 Center 1.98996 GHz 1 MHz/ Span 10 MHz Date: 14.JAN.2000 15:01:32

Channel 1998 / Carrier frequency = 1989.96 MHz Unmodulated

EXHIBIT 6 Page 6.10

FCC ID NO. B5KKRC12103-31

# OCCUPIED BANDWIDTH 26 dB POINTS

Modulation Sideband Spectrum Measured Per TIA/IS-136/IS-138 300 Hz RF Att 0 dB Delta 1 [T1] RBW Ref Lvl -0.86 dB VBW 5 kHz 51.9 dBm 29.85971944 kHz SWT 5.6 s Unit dBm 50 . 9 dB Offs А 40 ushered to prove the second 30 IN1 20 **1VIEW** 1MA 10 С -10 -20 14月 -40 Center 1.93008 GHz 10 kHz/ Span 100 kHz



Channel 2 / Carrier frequency = 1930.08 MHz Referenced to the Rated Power Output Modulated with 48.6 kbs PSEUDORANDOM DATA

EXHIBIT 6 Page 6.11

FCC ID NO. B5KKRC12103-31

# Modulation Sideband Spectrum Measured Per TIA/IS-136/IS-138 RF Att 0 dB Delta 1 [T1] RBW 300 Hz Ref Lvl -0.51 dB VBW 300 Hz 51.9 dBm 30.16032064 kHz SWT 5.6 s Unit dBm 50 . 9 dB Offs А 40 30 IN1 20 **1VIEW** 1MA 10 С -10 -20 - 3 -40 Center 1.98996 GHz 10 kHz/ Span 100 kHz

## OCCUPIED BANDWIDTH 26 dB POINTS

Date: 14.JAN.2000 15:11:43

Channel 1998 / Carrier frequency = 1989.96 MHz Referenced to the Rated Power Output Modulated with 48.6 kbs PSEUDORANDOM DATA

EXHIBIT 6 Page 6.12

FCC ID NO. B5KKRC12103-31

#### OCCUPIED BANDWIDTH BAND EDGES



Channel 2 / Carrier frequency = 1930.08 MHz Referenced to the Rated Power Output Modulated with 48.6 kbs PSEUDORANDOM DATA

EXHIBIT 6 Page 6.13

FCC ID NO. B5KKRC12103-31

# OCCUPIED BANDWIDTH BAND EDGES



Channel 1998 / Carrier frequency = 1989.96 MHz Referenced to the Rated Power Output Modulated with 48.6 kbs PSEUDORANDOM DATA

EXHIBIT 6 Page 6.14

FCC ID NO. B5KKRC12103-31

## CONDUCTED SPURIOUS EMISSIONS

2.1051	Conducted Spurious Emissions
	Spurious emissions at the antenna terminal (conducted) when properly loaded with an appropriate artificial antenna were measured per EIA/IS-138 § 3.4.2.
	Equipment used:
	Rohde & Schwarz ESI 40, EMI Test Receiver Including: Spectrum Analyzer, 20 Hz-40 GHz EMI Receiver, 20 Hz-40 GHz

Option FSE-B7 Signal Vector Analysis

EXHIBIT 6 Page 6.15

FCC ID NO. B5KKRC12103-31

## CONDUCTED SPURIOUS EMISSIONS DIGITAL MODE

Conducted Spurious Emission Measured Per TIA/IS-136/IS-138 RBW 1 MHz RF Att 0 dB Ref Lvl VBW 1 MHz 52 dBm SWT 115 ms Unit dBm 50 62 dB Offset А 40 30 IN1 20 1MA 10 С -10 -D1 -1 dBm M while manufor manufor a stand the second of YIYYYY Mundha -20 Mh -30 -40 Start 9 kHz 1.9999991 GHz/ Stop 20 GHz

Date: 8.DEC.1999 15:26:35

Rated Power Output = 28 Watt Channel 2 / Carrier frequency = 1930.08 MHz Modulated with 48.6 kbs PSEUDORANDOM DATA

Note: Measured without bandpass filter on TRX output. See description of Spurious and Harmonic Suppression in Exhibit 5A.

EXHIBIT 6 Page 6.16

FCC ID NO. B5KKRC12103-31

# CONDUCTED SPURIOUS EMISSIONS DIGITAL MODE

Conducted Spurious Emission Measured Per TIA/IS-136/IS-138 0 dB RBW 1 MHz RF Att Ref Lvl VBW 1 MHz 52 dBm SWT 115 ms Unit dBm 50 62 dB Offset А 40 30 IN1 20 1MA 10 С -10 -D1 -1 dBm walk mil Margin more marging الالليه JA. AL -20 -30 -40 Start 9 kHz 1.9999991 GHz/ Stop 20 GHz Date: 8.DEC.1999 15:17:28

Rated Power Output = 28 Watt Channel 2 / Carrier frequency = 1930.08 MHz Modulated with 48.6 kbs PSEUDORANDOM DATA

Note: Measured with bandpass filter on TRX output. See description of Spurious and Harmonic Suppression in Exhibit 5A.

EXHIBIT 6 Page 6.17

FCC ID NO. B5KKRC12103-31

## CONDUCTED SPURIOUS EMISSIONS DIGITAL MODE

Conducted Spurious Emission Measured Per TIA/IS-136/IS-138 RBW 1 MHz RF Att 0 dB Ref Lvl VBW 1 MHz 52 dBm SWT 115 ms Unit dBm 50 62 dB Offset А 40 30 IN1 20 1MA 10 С -10 -D1 -1 dBm ኢለ my well planter bound and run -20 -30 -40 Start 9 kHz 1.9999991 GHz/ Stop 20 GHz

Date: 8.DEC.1999 15:28:03

Rated Power Output = 28 Watt Channel 1000 / Carrier frequency = 1960.02 MHz Modulated with 48.6 kbs PSEUDORANDOM DATA

Note: Measured without bandpass filter on TRX output. See description of Spurious and Harmonic Suppression in Exhibit 5A.

EXHIBIT 6 Page 6.18

FCC ID NO. B5KKRC12103-31

# CONDUCTED SPURIOUS EMISSIONS DIGITAL MODE



Date: 8.DEC.1999 15:19:30

Rated Power Output = 28 Watt Channel 1000 / Carrier frequency = 1960.02 MHz Modulated with 48.6 kbs PSEUDORANDOM DATA

Note: Measured with bandpass filter on TRX output. See description of Spurious and Harmonic Suppression in Exhibit 5A.

EXHIBIT 6 Page 6.19

FCC ID NO. B5KKRC12103-31

# CONDUCTED SPURIOUS EMISSIONS DIGITAL MODE



Date: 8.DEC.1999 15:28:44

Rated Power Output = 28 Watt Channel 1998 / Carrier frequency = 1989.96 MHz Modulated with 48.6 kbs PSEUDORANDOM DATA

Note: Measured without bandpass filter on TRX output. See description of Spurious and Harmonic Suppression in Exhibit 5A.

EXHIBIT 6 Page 6.20

FCC ID NO. B5KKRC12103-31

# CONDUCTED SPURIOUS EMISSIONS DIGITAL MODE

Conducted Spurious Emission Measured Per TIA/IS-136/IS-138 RF Att 0 dB RBW 1 MHz Ref Lvl VBW 1 MHz 52 dBm SWT 115 ms Unit dBm 50 62 dB Offset А 40 30 IN1 20 1MA 10 С -10 dBm -D1 -13 1 turnelly hours hours tishuwa. -20 小 -30 -40 Start 9 kHz 1.9999991 GHz/ Stop 20 GHz

Date: 8.DEC.1999 15:22:56

Rated Power Output = 28 Watt Channel 1998 / Carrier frequency = 1989.96 MHz Modulated with 48.6 kbs PSEUDORANDOM DATA

Note: Measured with bandpass filter on TRX output. See description of Spurious and Harmonic Suppression in Exhibit 5A.

EXHIBIT 6 Page 6.21

FCC ID NO. B5KKRC12103-31

# RADIATED SPURIOUS EMISSIONS MACRO DIGITAL MODE

2.1053 Field Strength of Spurious Radiation

Ref. 2.1053 field strength of spurious emissions was measured on our 3 meter range. The measurement procedure is per EIA/IS-138.

EXHIBIT 6 Page 6.22 FCC ID NO.

FCC ID NO. B5KKRC12103-31

RADIATED SPURIOUS EMISSIONS MACRO DIGITAL MODE

Radiated Spurious Emission Measured Per TIA/IS-136/IS-138



Rated Power Output = 28 Watt Channel 2 / Carrier frequency = 1930.08 MHz Modulated with 48.6 kbs PSEUDORANDOM DATA

EXHIBIT 6 Page 6.23 FCC ID NO.

B5KKRC12103-31

RADIATED SPURIOUS EMISSIONS MACRO DIGITAL MODE

Radiated Spurious Emission Measured Per TIA/IS-136/IS-138



Rated Power Output = 28 Watt Channel 1998 / Carrier frequency = 1989.96 MHz Modulated with 48.6 kbs PSEUDORANDOM DATA

EXHIBIT 6 Page 6.24

FCC ID NO. B5KKRC12103-31

#### FREQUENCY STABILITY MACRO WITH CRI

2.1055 (a,b,d) Output Frequency Variation of output frequency as a result of either temperature or voltage variation is reported in the graphs on the following pages. The measurements were made per TIA/ IS-136/IS-138. Equipment used: Rohde & Schwarz ESI 40, EMI Test Receiver Including: Spectrum Analyzer, 20 Hz-40 GHz EMI Receiver, 20 Hz-40 GHz Option FSE-B7 Signal Vector Analysis SATT Stand Alone Test Tool MB Teknik Walk-in temperature chamber with Internal calibrated temperature control. The R&S ESI 40 was hooked up to a external 10 MHz reference standard during the measurements. The SATT (Stand Alone Test Tool) was hooked up to a 10 MHz reference standard from a HP89441 Vector Signal Analyzer during the measurements.

EXHIBIT 6 Page 6.25

FCC ID NO. B5KKRC12103-31

# FREQUENCY STABILITY MACRO WITH CRI

2.1055 (a,b,d) Output Frequency versus Temperature



Channel 1000 Output Power 44.5 dBm Supply Voltage: 27.2 V (nominal)

EXHIBIT 6 Page 6.26

FCC ID NO. B5KKRC12103-31

# FREQUENCY STABILITY MACRO WITH CRI

2.1055 (a,b,d) Output Frequency versus Temperature



Channel 1000 Output Power 44.5 dBm Supply Voltage:23.12 V (85% of nominal)

EXHIBIT 6 Page 6.27

FCC ID NO. B5KKRC12103-31

# FREQUENCY STABILITY MACRO WITH CRI

2.1055 (a,b,d) Output Frequency versus Temperature



Channel 1000 Output Power 44.5 dBm Supply Voltage: 31.28 V (115% of nominal)