

Prepared (also subject responsible if other) EMWTHAN		No. 2/0061-KRB 901 18/1 Uen		
Approved EAB/PDB/RG [Thomas Andersson]	Checked	Date 2005-10-18	Rev A	Reference TA8AKRB90118-1

Exhibit 12 – Circuit Description

Contents

1	2.1033(c) Circuit Description	2
1.1	(2) FCC Identifier: TA8AKRB90118-1	2
1.2	(4) Type of Emission: F9W	2
1.3	(5) Frequency range: 869 to 894 MHz	2
1.4	(6) Range of Operating Power:	2
1.5	(7) Maximum Power Rating:	2
1.6	(8) Final Amplifier Voltage and Current In normal operation	2
1.7	(10) Frequency Stabilizing Circuit Description	2
1.8	(10) Spurious and Harmonic Suppression	2
1.9	(10) Limiting Power	3
1.10	(10) Digital Modulation QPSK and 16QAM	3

Prepared (also subject responsible if other) EMWTHAN		No. 2/0061-KRB 901 18/1 Uen		
Approved EAB/PDB/RG [Thomas Andersson]	Checked	Date 2005-10-18	Rev A	Reference TA8AKRB90118-1

1 2.1033(c) Circuit Description

1.1 (2) FCC Identifier: TA8AKRB90118-1

This PAU (Power Amplifier Unit) consists of one amplifier operating in the frequency band of 869 to 894 MHz. The PAU is capable of operation in a WCDMA system.

1.2 (4) Type of Emission: F9W

1.3 (5) Frequency range: 869 to 894 MHz

1.4 (6) Range of Operating Power:

The PAU is designed to supply a nominal power level of 44.5 dBm at the output connector which corresponds to 42.4 dBm in the Antenna Reference Point.

1.5 (7) Maximum Power Rating:

The maximum power rating with one PAU under environmental and supply voltage variations is equal to 44.5 ± 1 dBm which corresponds to 42.4 ± 1 dBm in the Antenna Reference Point.

1.6 (8) Final Amplifier Voltage and Current In normal operation

	Average Output Power 44.5 dBm Values for Q2 and Q3 each
Voltage	30.5 Volt DC
Current	2.35 Ampere DC

1.7 (10) Frequency Stabilizing Circuit Description

N.A.

1.8 (10) Spurious and Harmonic Suppression

Spurious and harmonic suppression is achieved by using band pass filters in PAU. A filter module at the output (in PAU) works like a band pass filter around the carrier

Prepared (also subject responsible if other) EMWTHAN		No. 2/0061-KRB 901 18/1 Uen		
Approved EAB/PDB/RG [Thomas Andersson]	Checked	Date 2005-10-18	Rev A	Reference TA8AKRB90118-1

1.9 (10) Limiting Power

The PAU measures the output power via an RF detector. The output will be switch off, if the power at the output connector exceeds 46.5 dBm. The PAU must be reset to switch on the output power again.

1.10 (10) Digital Modulation QPSK and 16QAM

The PAU is intended for amplification of QPSK and 16QAM in a WCDMA system.