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REPORT ON RF EXPOSURE CALCULATIONS

Performed at:
TWENTY PENCE TEST SITE

Twenty Pence Road,
Cottenham,
Cambridge
U.K.
CB24 8PS

on

3T Communications AG

SOLO-45X

dated

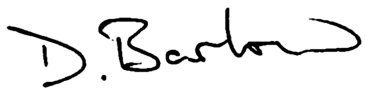
24th October 2012

Document History

Issue	Date	Affected page(s)	Description of modifications	Revised by	Approved by
1	05/11/12		Initial release		

Based on report template:
v090319

Equipment Under Test (EUT):	SOLO-45X
Test Commissioned by:	3T Communications AG Geyschlägergasse 14 1150 Wien Austria
Representative:	Ian Doggett
Test Started:	2nd October 2012
Test Completed:	11th October 2012
Test Engineer:	Dave Smith
Date of Report:	24th October 2012

Written by:	Dave Smith	Checked by:	Derek Barlow
Signature:		Signature:	
Date:	24th October 2012	Date:	5th November 2012

dB Technology can only report on the specific unit(s) tested at its site. The responsibility for extrapolating this data to a product line lies solely with the manufacturer.

1 EUT Details

1.1 General

The EUT was a TETRA Voice +Data Base Station.

The nominal output power is 44dBm (25W).

Exposure Calculations for General Environment

RF Exposure Evaluation: OET Bulletin 65 97-01 CFR 47 1.1310

GENERAL ENVIRONMENT

Manufacturer: 3T

Product: SOLO-45X

Antenna 1: Kathrein Scala - 741 518 88 deg Panel Antenna
13.5dBi Numeric Gain 22

Frequency (MHz)	450		470	
Output Power (mW):	25000		25000	
Numerical Antenna Gain:	22.4		22.4	
Duty cycle (%):	100		100	
Distance (cm):	390		390	
Power Density (mW/cm2):	**0.293**		**0.293**	
FCC Limits: (mW/cm2)				
General Environment: (f/1500)	**0.30**	**PASS**	**0.31**	**PASS**

Output power is nominal output as specified by the manufacturer and verified in the test report.

Antenna gain is taken from the supplied data sheets.

Conclusion:

At a distance of 390cm the maximum power density is 0.293 mW/cm2 which is below the general environment limit of 0.3 mW/cm2

Exposure Calculations for Controlled Environment

RF Exposure Evaluation: OET Bulletin 65 97-01 CFR 47 1.1310

CONTROLLED ENVIRONMENT

Manufacturer: 3T

Product: SOLO-45X

Antenna 1: Kathrein Scala - 741 518 88 deg Panel Antenna
13.5dBi Numeric Gain 22

Frequency (MHz)	450		470	
Output Power (mW):	25000		25000	
Numerical Antenna Gain:	22.4		22.4	
Duty cycle (%):	100		100	
Distance (cm):	180		180	
Power Density (mW/cm2):	**1.375**		**1.375**	
FCC Limits: (mW/cm2)				
Controlled Environment: (f/300)	**1.50**	**PASS**	**1.57**	**PASS**

Output power is nominal output as specified by the manufacturer and verified in the test report.

Antenna gain is taken from the supplied data sheets.

Conclusion:

At a distance of 180cm the maximum power density is 1.375 mW/cm2 which is below the controlled environment limit of 1.5 mW/cm2