9 EUT Test Setup

9.1 Block Diagram

The following diagram shows basic EUT interconnections with cable type and cable lengths identified:

EUT is a standalone, battery powered device

EUT

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9.2 General Set-up Photograph

The following photograph shows basic EUT set-up:



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16.4 Test Method

With the EUT setup as per section 9 of this report and connected as per Figure viii, the emissions from the EUT were measured on a spectrum analyzer / EMI receiver. The EUT was rotated in three orthogonal planes and the measurement antenna height scanned (below 1 GHz, from 1 to 4 m; above 1 GHz as necessary) in order to maximise emissions.

The measurements were performed with EUT set at its maximum duty. All modulation schemes, data rates and power settings were used to observe the worst-case configuration at each frequency. Pre-scan plots are shown with a peak detector and 100 kHz RBW.

Figure viii Test Setup



Test Setup Photograph(s)



16.5 Test Equipment

Type of Equipment	Maker/Supplier	Model Number	Element Number	Calibration Due Date	
Spectrum Analyser	Rhode & Schwarz	FSU46	REF909	13/02/2016	
Receiver	Rhode & Schwarz	ESVS10	TRL317	26/02/2016	
Pre Amplifier	Agilent	8449B	L572	10/02/2016	
Horn Antenna	EMCO	3115	L139	25/09/2017	
Log Periodic Antenna	Chase	CBL611/A	UH191	26/02/2017	

16.6 Test Results

Detector	Freq. (MHz)	Measured Emission (dBµV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Pre-amp Gain (dB)	Field Strength (dBµV/m)	Extrap'n Factor (dB)	Field Strength (μV/m)	Limit (μV/m)	
No Significant Emissions										

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