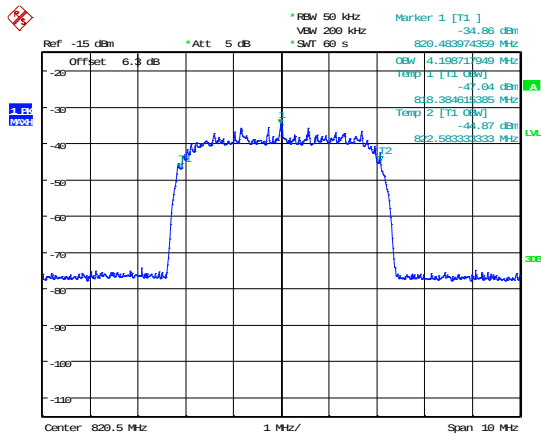
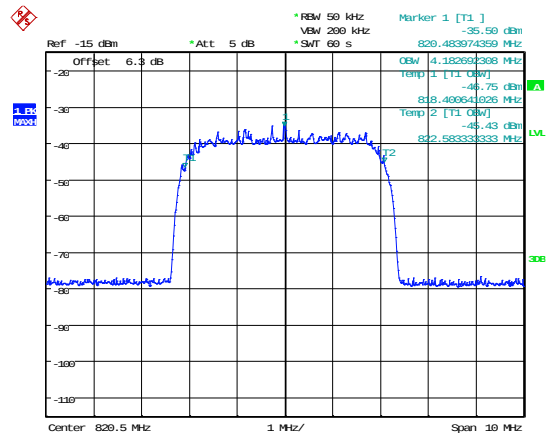


WCDMA AGC



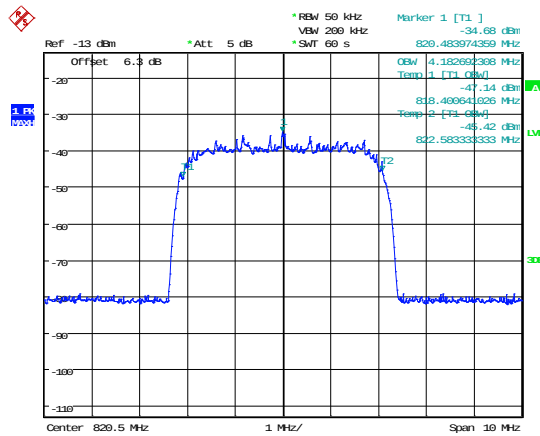
Date: 23.JUN.2016 12:10:40

WCDMA AGC+3



Date: 23.JUN.2016 12:12:03

WCDMA Signal Generator



Date: 23.JUN.2016 12:16:45

Modulation	Fl(MHz)	fh(MHz)	99%OCBW(MHz)
5MHz LTE AGC	818.432692	822.551282	4.11
5MHz LTE AGC+3	818.448717	822.551282	4.10
5MHz LTE Signal Generator	818.432692	822.551282	4.11
5MHz WCDMA AGC	818.384615	822.583333	4.19
5MHz WCDMA AGC+3	818.400641	822.583333	4.18
5MHz WCDMA Signal Generator	818.400641	822.583333	4.18

Appendix C:

Additional Test and Sample Details

This appendix contains details of:

1. The samples submitted for testing.
2. Details of EUT operating mode(s)
3. Details of EUT configuration(s) (see below).
4. EUT arrangement (see below).

Throughout testing, the following numbering system is used to show the sample and it's modification state:

Sample No: Sxx Mod w

where:

xx	= sample number	eg. S01
w	= modification number	eg. Mod 2

The following terminology is used throughout the test report:

Support Equipment (SE) is any additional equipment required to exercise the EUT in the applicable operating mode. Where relevant SE is divided into two categories:

SE in test environment: The SE is positioned in the test environment and is not isolated from the EUT (e.g. on the table top during REFE testing).

SE isolated from the EUT: The SE is isolated via filtering from the EUT. (e.g. equipment placed externally to the ALSR during REFE testing).

EUT configuration refers to the internal set-up of the EUT. It may include for example:

- Positioning of cards in a chassis.
- Setting of any internal switches.
- Circuit board jumper settings.
- Alternative internal power supplies.

Where no change in EUT configuration is **possible**, the configuration is described as "single possible configuration".

EUT arrangement refers to the termination of EUT ports / connection of support equipment, and where relevant, the relative positioning of samples (EUT and SE) in the test environment.

For further details of the test procedures and general test set ups used during testing please refer to the related document "EMC Test Methods - An Overview", which can be supplied by Element Global upon request.

C1) Test samples

The following samples of the apparatus were submitted by the client for testing:

Sample No.	Description	Identification
S01	MBF -40 Americas HP43 V4.1	1506D001

The following samples of apparatus were submitted by the client as host, support or drive equipment (auxiliary equipment):

Sample No.	Description	Identification
S02	OMU	None

The following samples of apparatus were supplied by Element Material Technology as support or drive equipment (auxiliary equipment):

Identification	Description
None	

C2) EUT Operating Mode During Testing.

During testing, the EUT was exercised as described in the following tables:

Test	Description of Operating Mode
EUT AGC threshold	Operating at maximum gain and output power
EUT out- of band rejection	Operating just below AGC
EUT Input-versus-output signal	Operating just below AGC and 3dB above AGC using MSK and AWGN modulations
EUT mean output power and amplifier gain	Operating just below AGC and 3dB above AGC using MSK and AWGN modulations
EUT out-of-band/block emissions	Operating just below AGC and 3dB above AGC using MSK and AWGN modulations
EUT spurious emissions conducted	Operating just below AGC and 3dB above AGC using MSK and AWGN modulations
EUT spurious emissions radiated	Operating at maximum gain and output power

C3) EUT Configuration Information.

The EUT was submitted for testing in one single possible configuration.

C4) List of EUT Ports

The tables below describe the termination of EUT ports:

Sample : S01
Tests : Conducted

Port	Description of Cable Attached	Cable length	Equipment Connected
Uplink DAS	Coaxial	>1m	Measurement System or 50Ω Load
Downlink DAS	Coaxial	>1m	Measurement System or 50Ω Load
Fibre	Fibre	>1m	OMU

Sample : S01
Tests : Radiated Emissions

Port	Description of Cable Attached	Cable length	Equipment Connected
Uplink DAS	Coaxial	>1m	Measurement System or 50Ω Load
Downlink DAS	Coaxial	>1m	Measurement System or 50Ω Load
Fibre	Fibre	>1m	OMU

* Only connected during setup.

C5 Details of Equipment Used

Element Number	Equipment Type	Equipment Description	Manufacturer	Calibration	Calibration Period
U191	CBL611/A	Bilog	Chase	26/02/2015	24
L139	3115	1-18GHz Horn	EMCO	25/09/2015	24
U281	FSU46	Spectrum Analyser	R&S	24/04/2015	12
L572	8449B	Pre Amp	Agilent	10/02/2015	12
REF916	SMBV100A	Signal Generator	R&S	17/02/2015	12
REF940	ATS	Radio Chamber - PP	Rainford EMC	08/09/2014	24
L317	ESVS10	Receiver	R&S	26/02/2015	12
RFG441	D-3000A	Signal Generator	Agilent	08/10/2014	24
REF2083	RPR3006W	Power Meter	DARE	17/11/2015	12

Equipment used for cable and attenuator calibration
Cables and attenuation used for conducted measurements

Element Number	Equipment Type	Equipment Description	Manufacturer	Calibration	Calibration Period
U281	FSU46	Spectrum Analyser	R&S	24/04/2015	12
REF916	SMBV100A	Signal Generator	R&S	17/02/2015	12
TRUHL273	N-N Cable	3mtr coax cable	-	Cal In use using U281& REF296	
TRLUH273	N-N Cable	3mtr coax cable	-	Cal In use using U281& REF296	
TRLUH272	N-N Cable	1.5mtr coax cable	-	Cal In use using U281& REF296	
TRLUH254	N-N Cable	1mtr coax cable	-	Cal In use using U281& REF296	
UH225		20dB attenuator		Cal In use using U281& REF296	
*	PN 90-858120	20dB attenuator	Axell Wireless	Cal In use using U281& REF296	
		6dB attenuator	Bird	Cal In use using U281& REF296	

Appendix D:

Additional Information

FCC tracking number 188304

KDB question to the FCC regarding omitting the MSK signal in the 2110-2155MHz 1710-1755MHz Bands.

FCC response on 02/01/2016

Omitting testing for narrowband (e.g. GSM) for 1700/2100 MHz for B2I device is acceptable as long as applicant coordinates with TCB to have grant comment stating the mode(s)/modulation(s) tested in the filing, and stating that use with other mode(s)/modulation(s) requires Class II permissive change.

Note: FCC rules and spectrum allocations are not in terms of specific technologies such as GSM. We agree it does not appear that GSM is deployed in US in 1700/2100 band at present. However, concerning "deployment" in U.S., we do not have info to confirm whether GSM will be used or not for each band, license, and nationwide location, now or in the near future.

Note:# Narrow band testing omitted, as only wideband modulation scheme used (AWGN testing only performed).As per KDB tracking number 188304.

KDB question to the FCC tracking number 472337

Can we use a reduction of the resolution bandwidth? To show compliance with the requirements of KDB 935210 D05 clause 3.6.3

FCC response on 12/18/2015

We may need to confer among staff and/or generically discuss among ASC C63-R WG folks with whom 935210 D05 was developed in parallel with draft C63.26.

Also it might be of interest for us and/or you to check other B2I filings since circa June 2015 for similar concerns or whether/what deviations might be therein.

At present the instant review has time for neither of the preceding, and will be out from Dec 21 to Dec 29.

Of the two proposed/questioned:

" Can the step away from the bandedge be increased or can we use a reduction of the resolution bandwidth "

the latter might be the most palatable.

However, we would like to review subsequent results one way or the other, and confirm per 1st para. above whether/what 935210 D05 revisions might be considered.

DECLARATION

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WR14 1BX
UK

Declaration **2016-8**

Ref: NEOMBF4103SERIES

To whom it may concern

Axell Wireless Ltd states in the User Manual for the booster with FCC ID NEOMBF4103SERIES that only suitably qualified, professional people should undertake the installation of the product.

By only using suitably qualified, professional personnel to install the device, installation of the antenna can be maintained, ensuring compliance with FCC RF exposure requirements and FCC rule part §90.219(e)(1) – Ensuring that the Booster does not exceed the 5W EIRP requirement.

Date: 05/02/2016



Brian Barton
Operations Support
Director

Axell Wireless

Appendix E: Photographs and Figures

The following photographs were taken of the test samples:

1. Radiated electric field emissions arrangement: front view.
2. Radiated electric field emissions arrangement: front view.

Photograph 1



Photograph 2

