

**Annex acc. to FCC Title 47 CFR Part 95 M
relating to
Hexagon Geosystems Services AG, Zweigniederlassung Hexagon Mining
QR4000**

Annex no. 3 Test results Channel occupancy/ bandwidth

**Title 47 - Telecommunication
Part 95 - Personal Radio Services
Subpart M – The 76 – 81 GHz Band Radar Service
Measurement Procedure:
ANSI C63.26-2015**

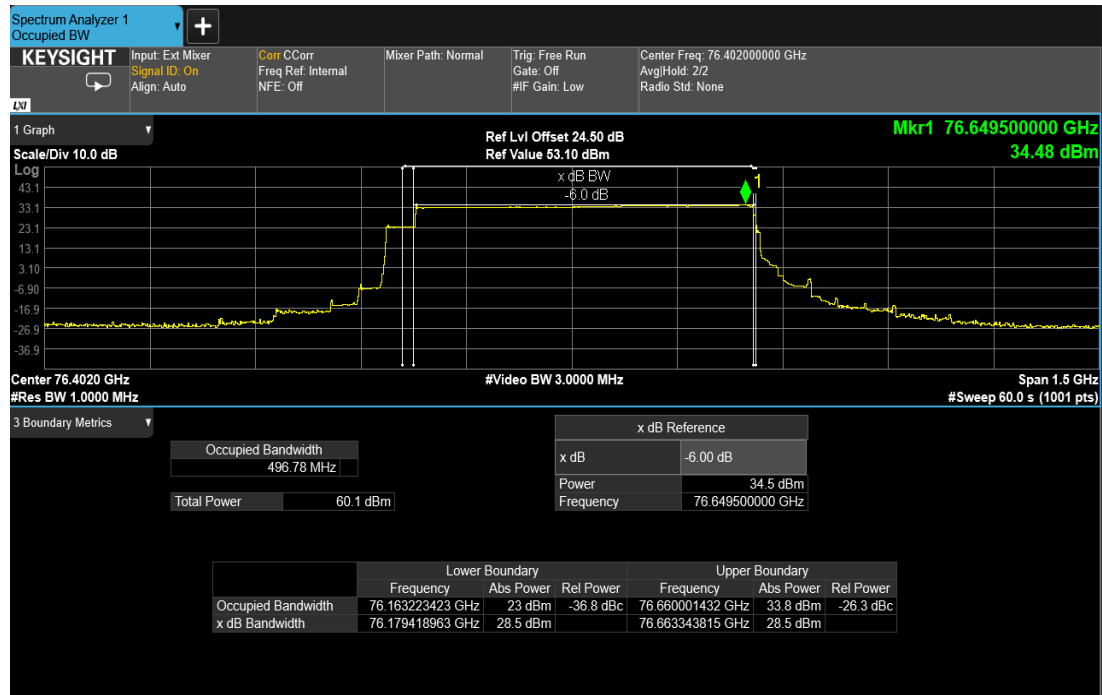


Deutsche
Akkreditierungsstelle
D-PL-12053-01-03

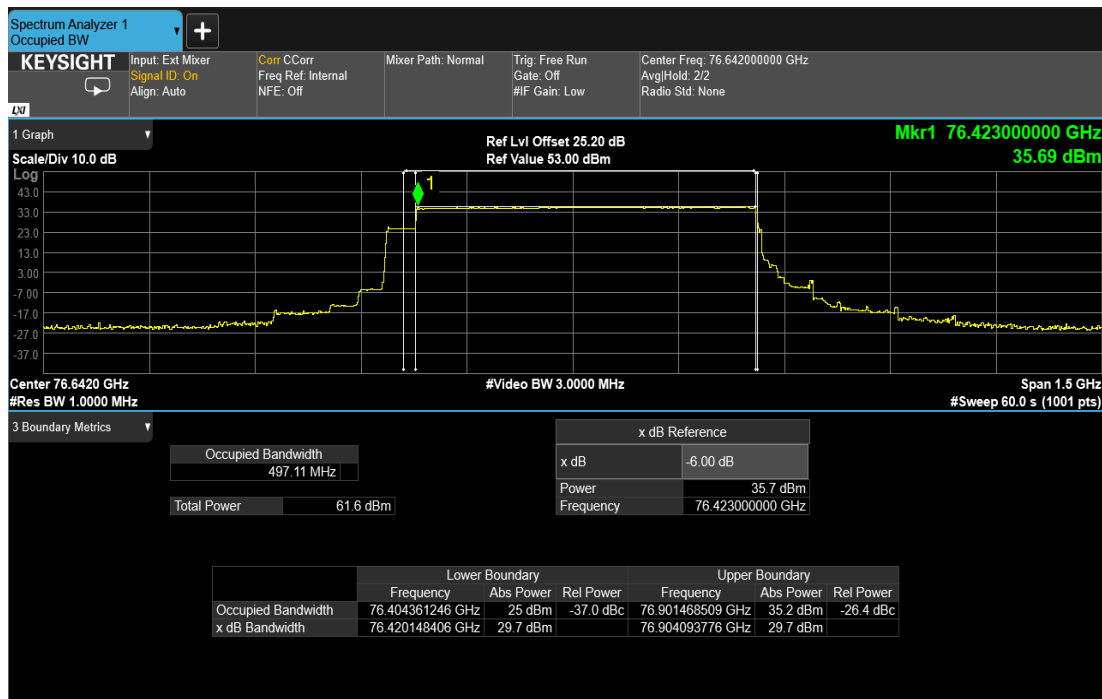
Version	Applied changes	Date of release
00	Initial release	2024-07-31

Test plots – Measured 6 dB Bandwidth (Waveform 0)

@ 76.365 GHz



@ 76.605 GHz



Test plots – Measured 6 dB Bandwidth (Waveform 1)

@ 76.125 GHz



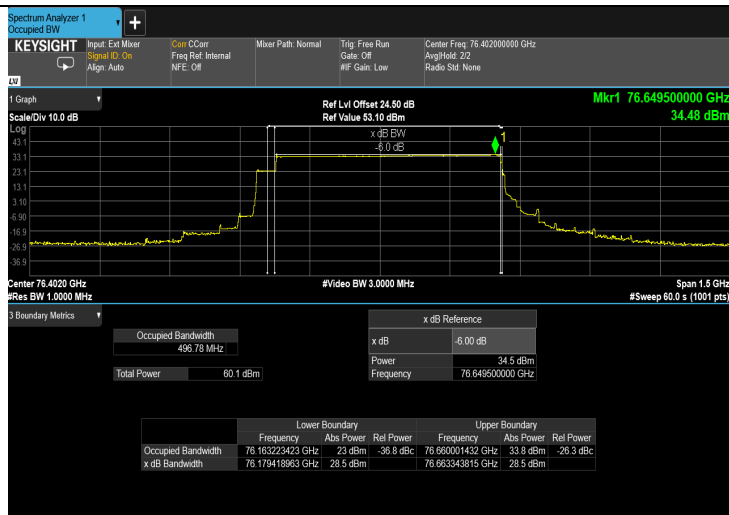
@ 76.845 GHz



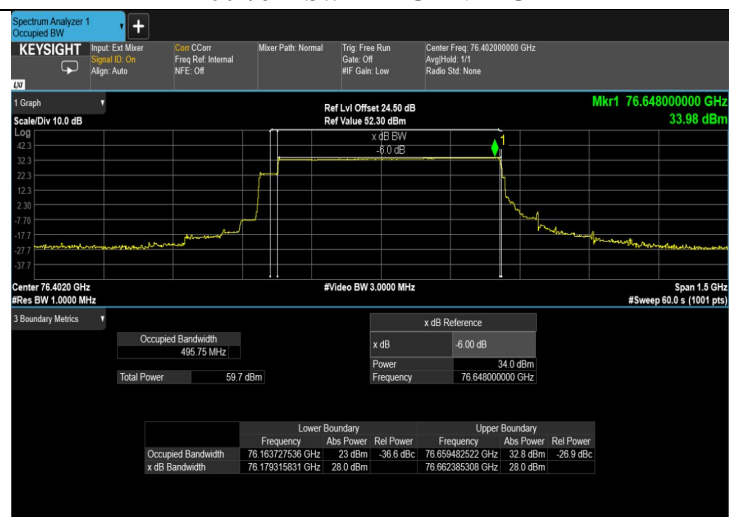
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EUT: QR4000---RADIO---
FCC ID: ZKS-QR4000---RADIO---
FCC Title 47 CFR Part 95 M---RADIO---
EUT: QR4000

Test plots – Frequency stability (Waveform 0 @ 76.365 GHz)

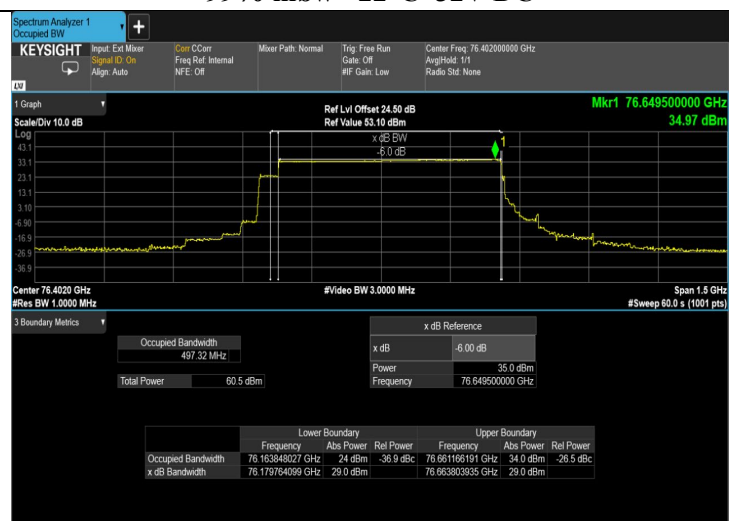
99% mbw +22°C 24V DC



99% mbw +22°C 7V DC



99% mbw +22°C 32V DC



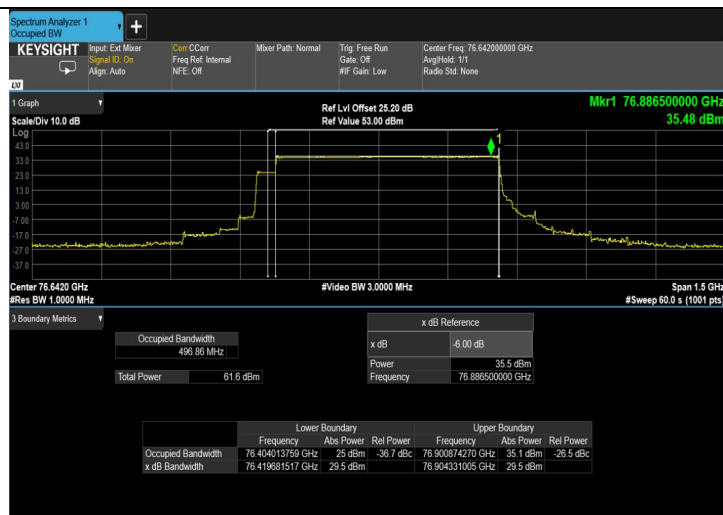
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FCC ID: ZKS-QR4000---RADIO---
FCC Title 47 CFR Part 95 M---RADIO---
EUT: QR4000

Test plots – Frequency stability (Waveform 0 @ 76.605 GHz)

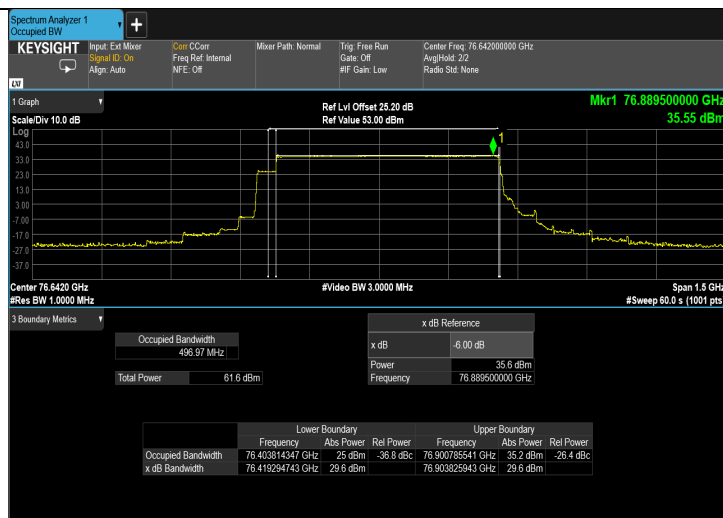
99% mbw +22°C 24V DC



99% mbw +22°C 7V DC



99% mbw +22°C 32V DC



---RADIO---
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FCC ID: ZKS-QR4000---RADIO---
FCC Title 47 CFR Part 95 M---RADIO---
EUT: QR4000

Test plots – Frequency stability (Waveform 1 @ 76.125 GHz)

99% mbw +22°C 24V DC



99% mbw +22°C 7V DC



99% mbw +22°C 32V DC



Test plots – Frequency stability (Waveform 1 @ 76.845 GHz)

99% mbw +22°C 24V DC



99% mbw +22°C 7V DC



99% mbw +22°C 32V DC



---RADIO---
EUT: QR4000---RADIO---
FCC ID: ZKS-QR4000---RADIO---
FCC Title 47 CFR Part 95 M---RADIO---
EUT: QR4000

Test plots – Frequency stability (Waveform 0 @ 76.365 GHz)

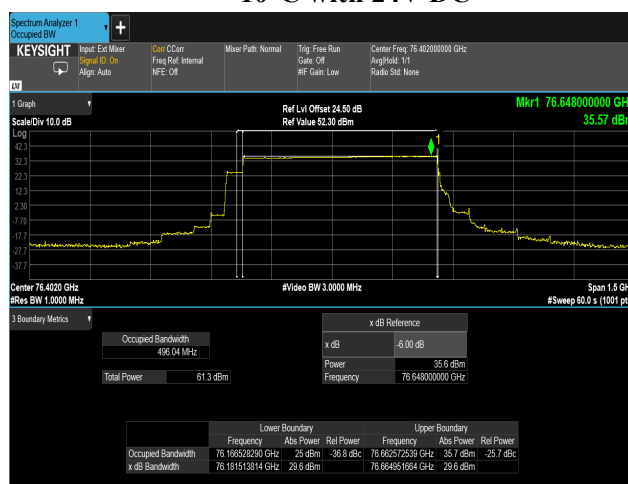
-40°C with 24 V DC



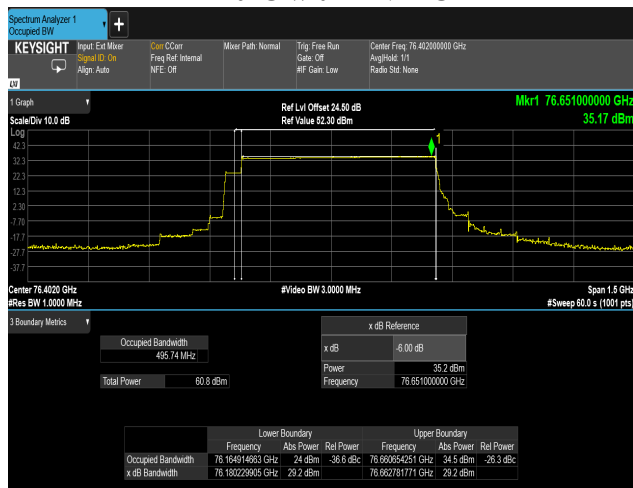
-20°C with 24V DC



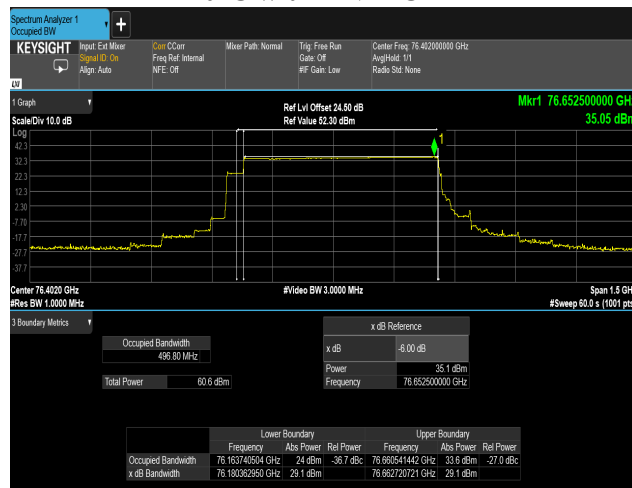
-10°C with 24V DC



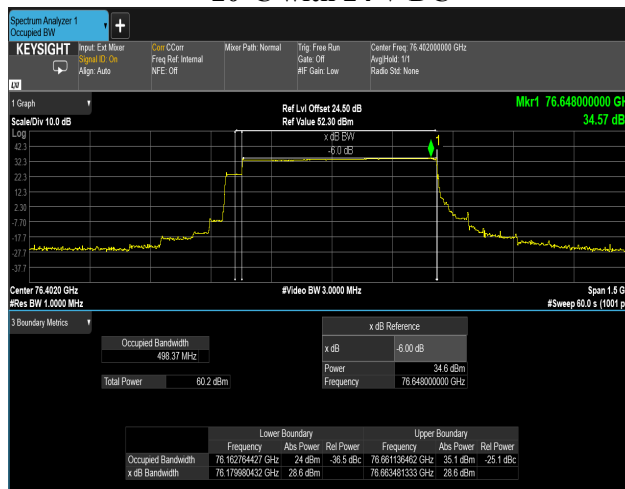
0°C with 24V DC



+10°C with 24V DC



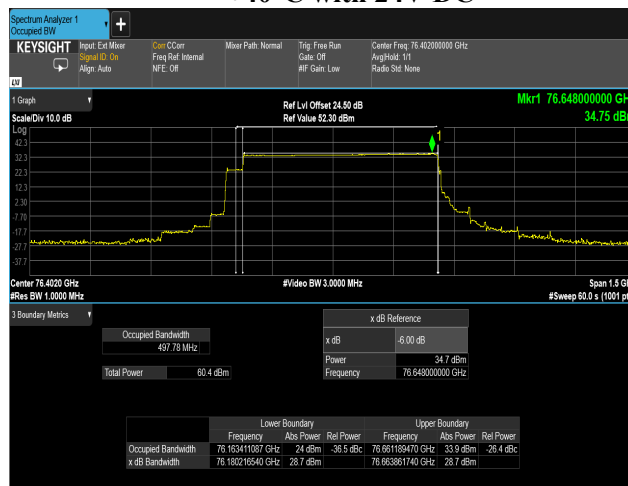
+20°C with 24 V DC



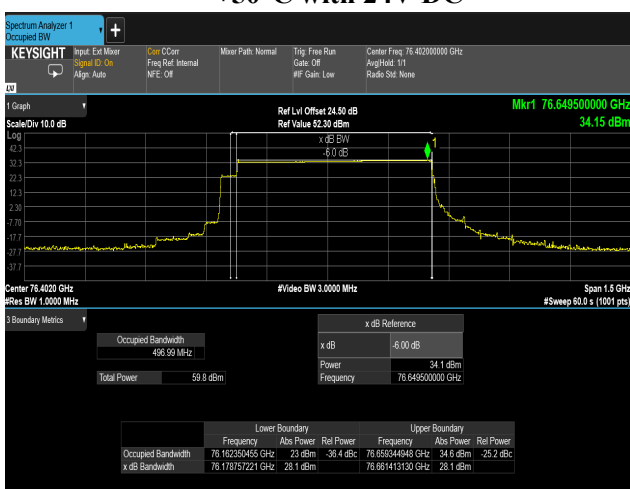
+30°C with 24V DC



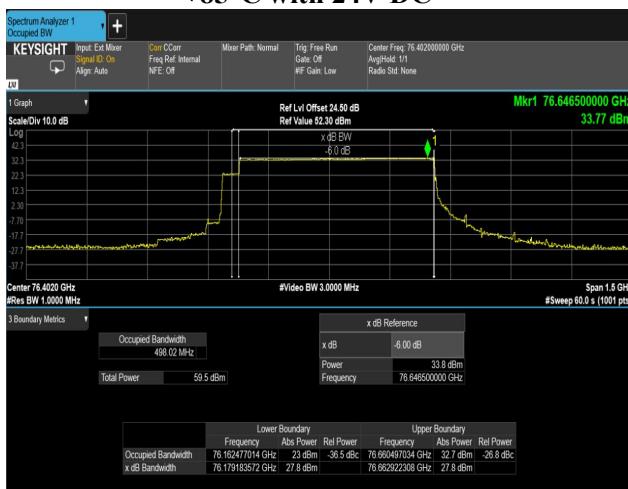
+40°C with 24V DC



+50°C with 24V DC



+85°C with 24V DC



Test plots – Frequency stability (Waveform 0 @ 76.605 GHz)

-40°C with 24 V DC



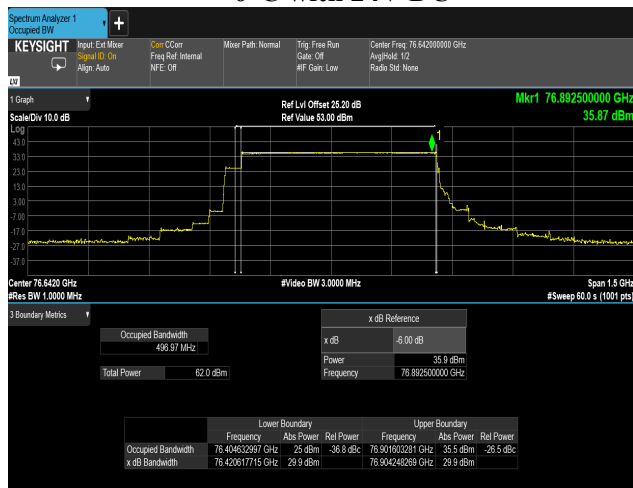
-20°C with 24V DC



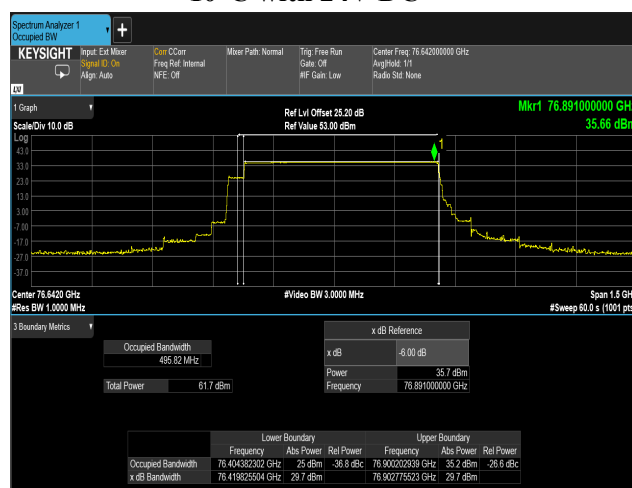
-10°C with 24V DC



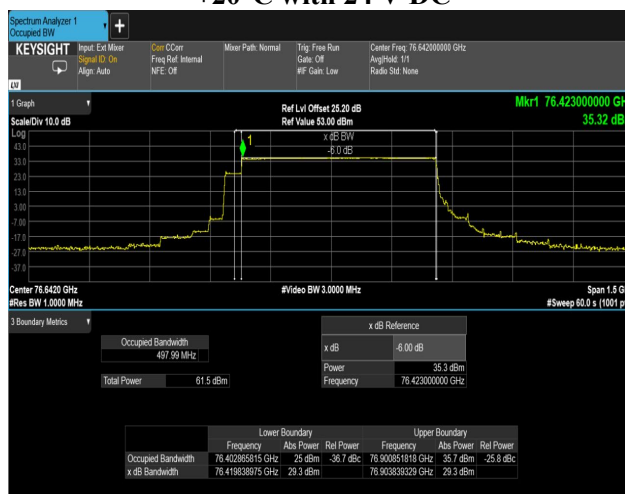
0°C with 24V DC



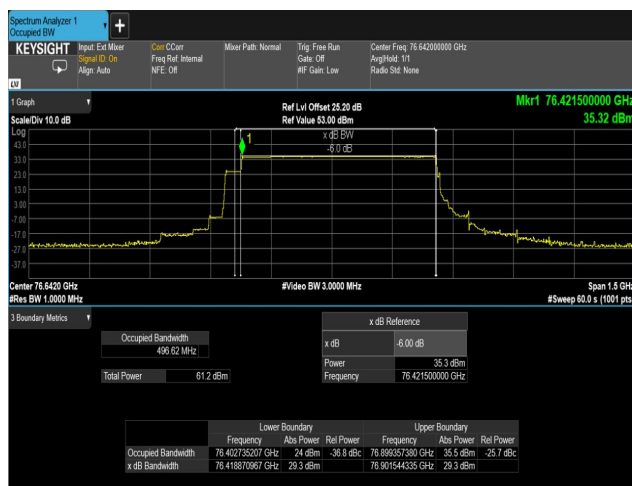
+10°C with 24V DC



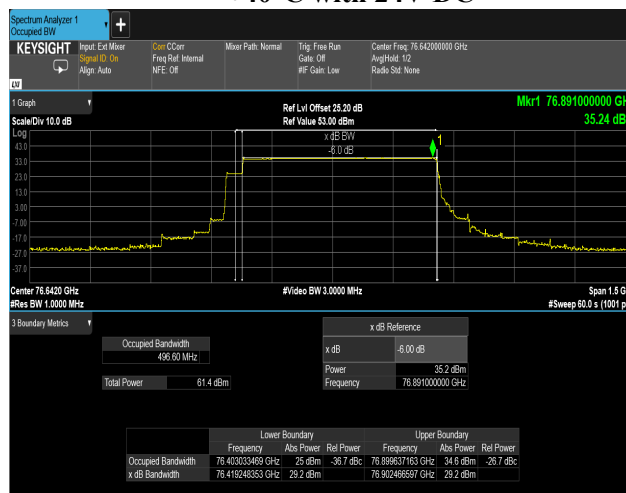
+20°C with 24 V DC



+30°C with 24V DC



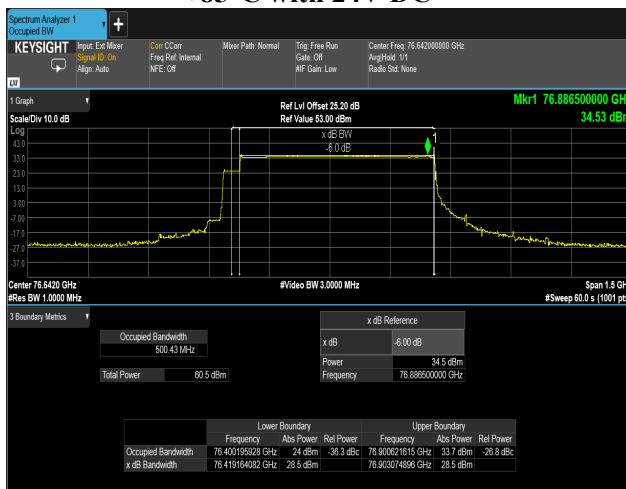
+40°C with 24V DC



+50°C with 24V DC



+85°C with 24V DC



Test plots – Frequency stability (Waveform 1 @ 76.125 GHz)

-40°C with 24 V DC



-20°C with 24V DC



-10°C with 24V DC



0°C with 24V DC



+10°C with 24V DC



EUT: QR4000

FCC ID: ZKS-QR4000

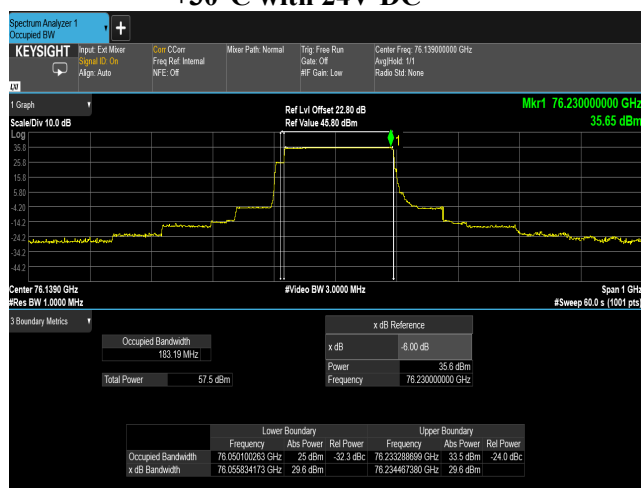
FCC Title 47 CFR Part 95 M

EUT: QR4000

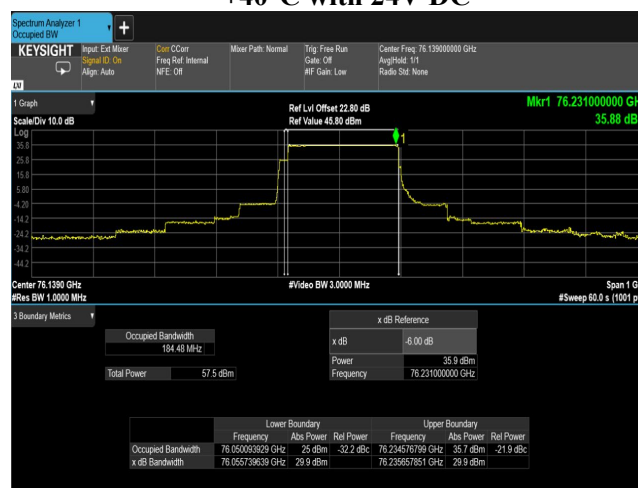
+20°C with 24 V DC



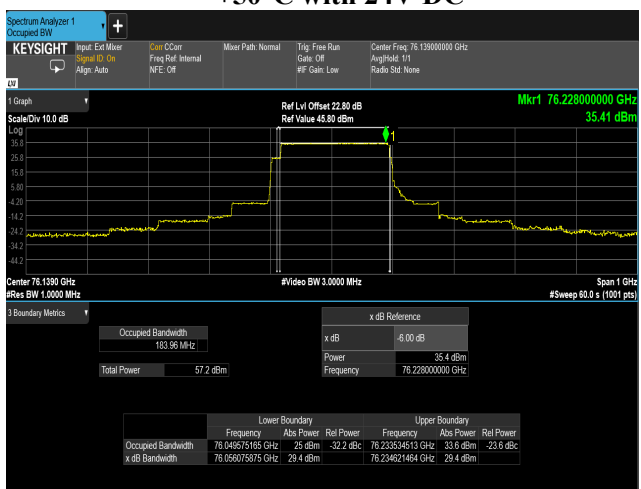
+30°C with 24V DC



+40°C with 24V DC



+50°C with 24V DC



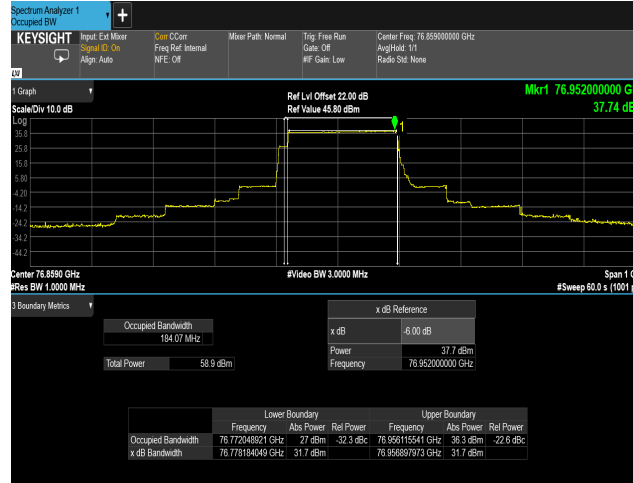
+85°C with 24V DC



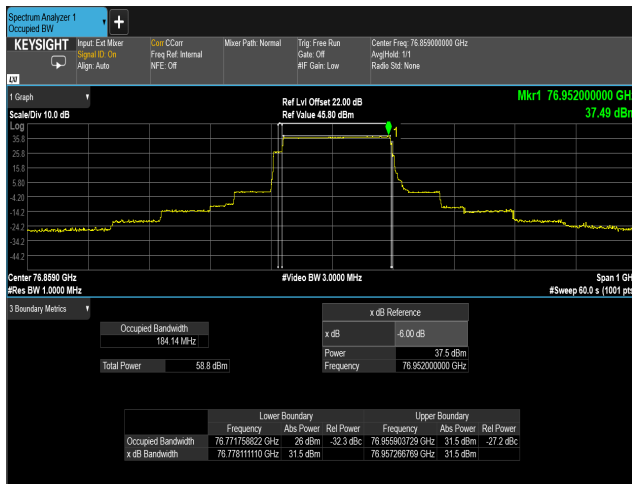
#

Test plots – Frequency stability (Waveform 1 @ 76.845 GHz)

-40°C with 24 V DC



-20°C with 24V DC



-10°C with 24V DC



0°C with 24V DC



+10°C with 24V DC



+20°C with 24 V DC



+30°C with 24V DC



+40°C with 24V DC



+50°C with 24V DC



+85°C with 24V DC

