

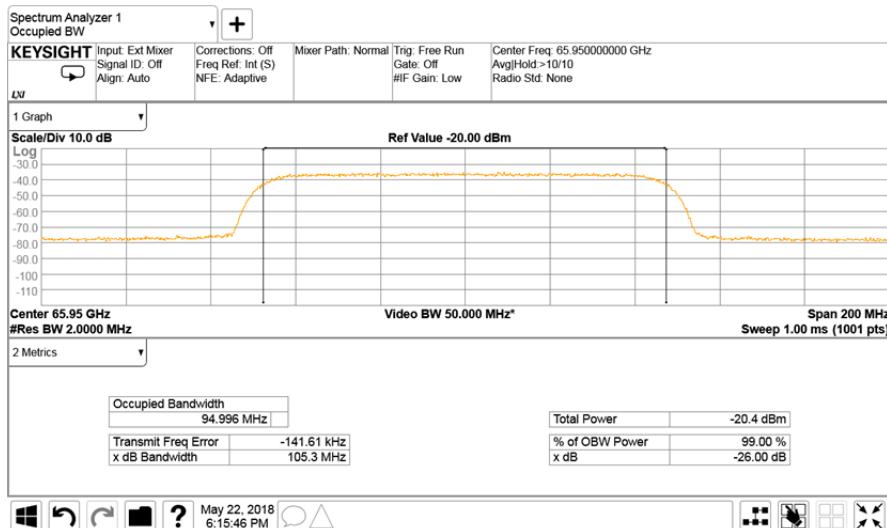


HERMON LABORATORIES

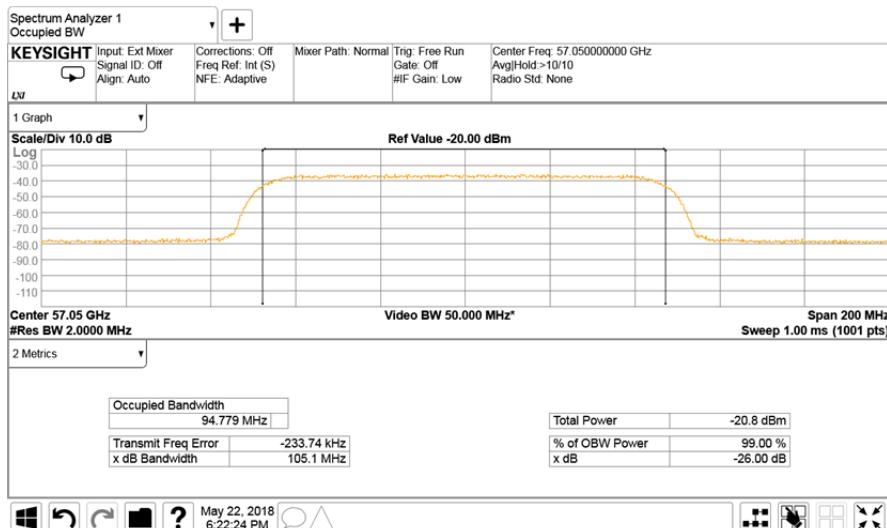
Test specification: Section 15.215(c), Occupied bandwidth		
Test procedure: 47 CFR, Section 2.1049, ANSI C63.10, Section 9.3		
Test mode: Compliance	Verdict: PASS	PASS
Date(s): 19-Jun-18 - 27-Jun-18		
Temperature: 24.2 °C	Relative Humidity: 48 %	Air Pressure: 1009 hPa
Remarks:		

Plot 7.2.39 Occupied bandwidth test result at High frequency

MODULATION:	64QAM
EMISSION BANDWIDTH:	100 MHz
at High frequency	65950 MHz

**Plot 7.2.40 Occupied bandwidth test result at Low frequency**

MODULATION:	128QAM
EMISSION BANDWIDTH:	100 MHz
at low frequency	57050 MHz



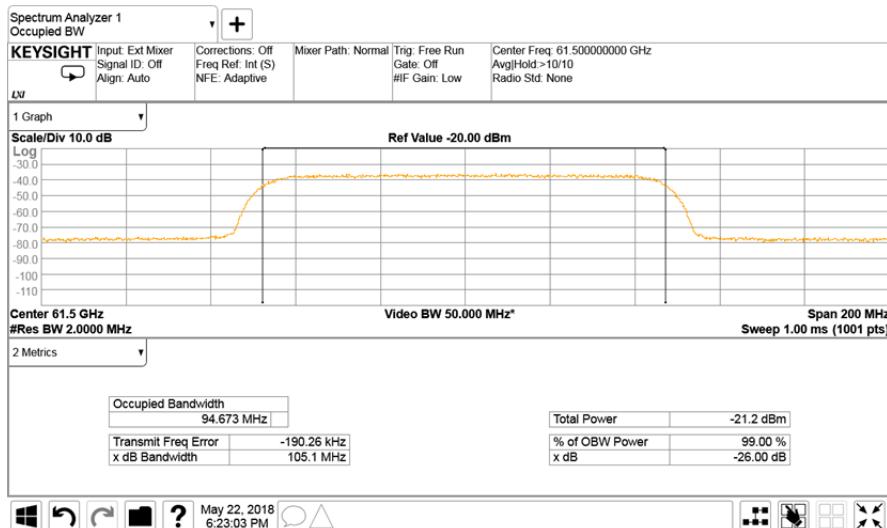


HERMON LABORATORIES

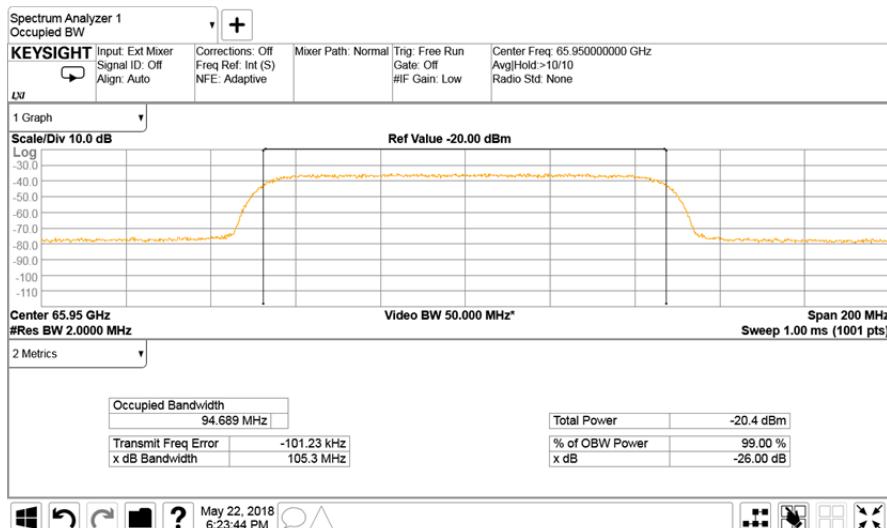
Test specification: Section 15.215(c), Occupied bandwidth		
Test procedure: 47 CFR, Section 2.1049, ANSI C63.10, Section 9.3		
Test mode: Compliance	Verdict: PASS	
Date(s): 19-Jun-18 - 27-Jun-18		
Temperature: 24.2 °C	Relative Humidity: 48 %	Air Pressure: 1009 hPa
Remarks:		

Plot 7.2.41 Occupied bandwidth test result at Mid frequency

MODULATION:	128QAM
EMISSION BANDWIDTH:	100 MHz
at mid frequency	61500 MHz

**Plot 7.2.42 Occupied bandwidth test result at High frequency**

MODULATION:	128QAM
EMISSION BANDWIDTH:	100 MHz
at High frequency	65950 MHz



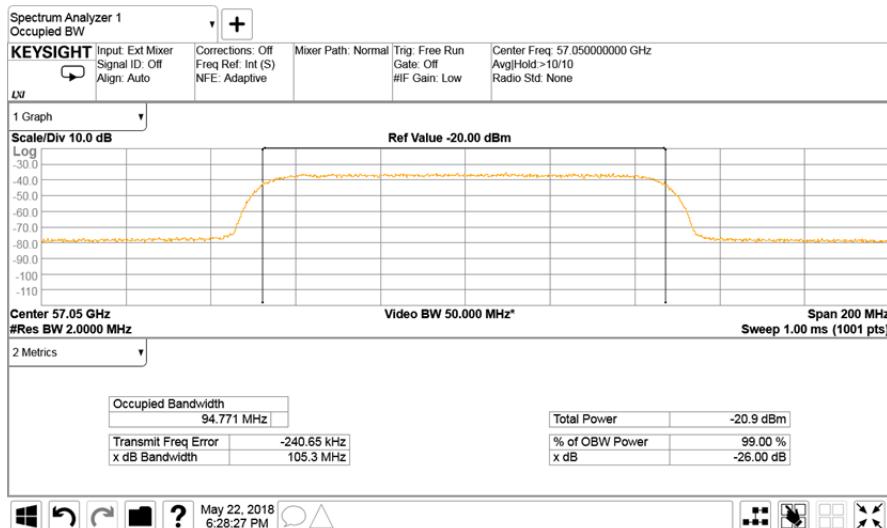


HERMON LABORATORIES

Test specification: Section 15.215(c), Occupied bandwidth		
Test procedure: 47 CFR, Section 2.1049, ANSI C63.10, Section 9.3		
Test mode: Compliance		Verdict: PASS
Date(s): 19-Jun-18 - 27-Jun-18		
Temperature: 24.2 °C	Relative Humidity: 48 %	Air Pressure: 1009 hPa
Remarks:		

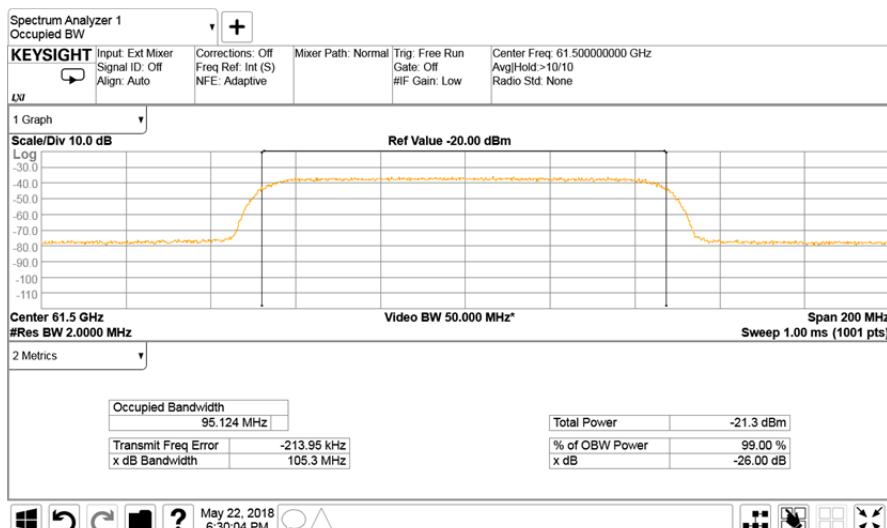
Plot 7.2.43 Occupied bandwidth test result at Low frequency

MODULATION:	256QAM
EMISSION BANDWIDTH:	100 MHz
at low frequency	57050 MHz



Plot 7.2.44 Occupied bandwidth test result at Mid frequency

MODULATION:	256QAM
EMISSION BANDWIDTH:	100 MHz
at mid frequency	61500 MHz



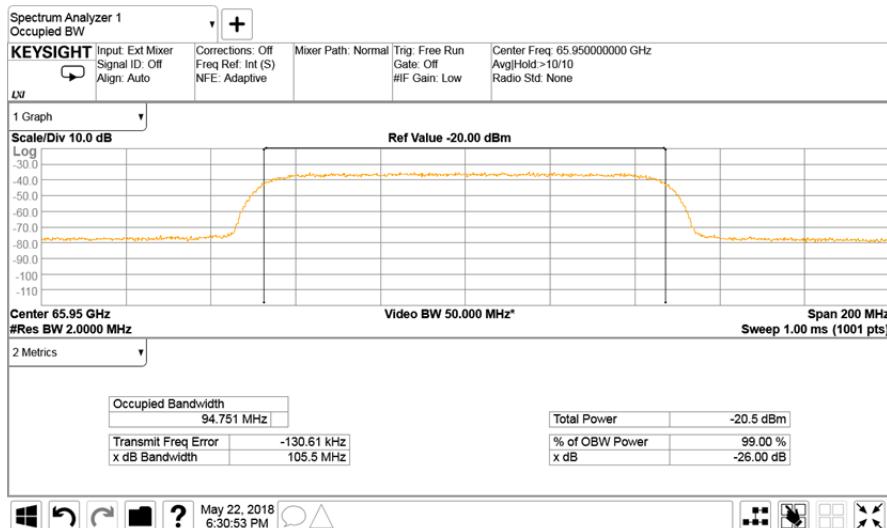


HERMON LABORATORIES

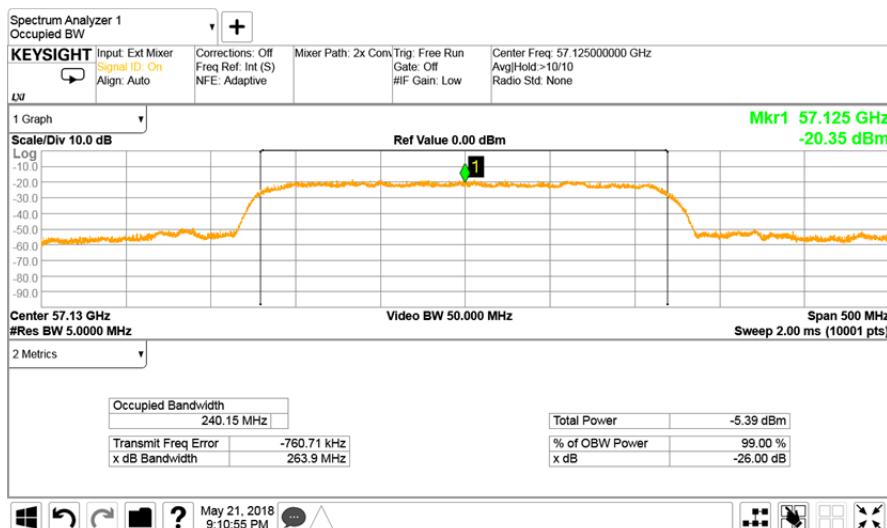
Test specification: Section 15.215(c), Occupied bandwidth		
Test procedure: 47 CFR, Section 2.1049, ANSI C63.10, Section 9.3		
Test mode: Compliance	Verdict: PASS	
Date(s): 19-Jun-18 - 27-Jun-18		
Temperature: 24.2 °C	Relative Humidity: 48 %	Air Pressure: 1009 hPa
Remarks:		

Plot 7.2.45 Occupied bandwidth test result at High frequency

MODULATION:	256QAM
EMISSION BANDWIDTH:	100 MHz
at High frequency	65950 MHz

**Plot 7.2.46 Occupied bandwidth test result at Low frequency**

MODULATION:	2QAM
EMISSION BANDWIDTH:	250 MHz
low frequency	57125 MHz



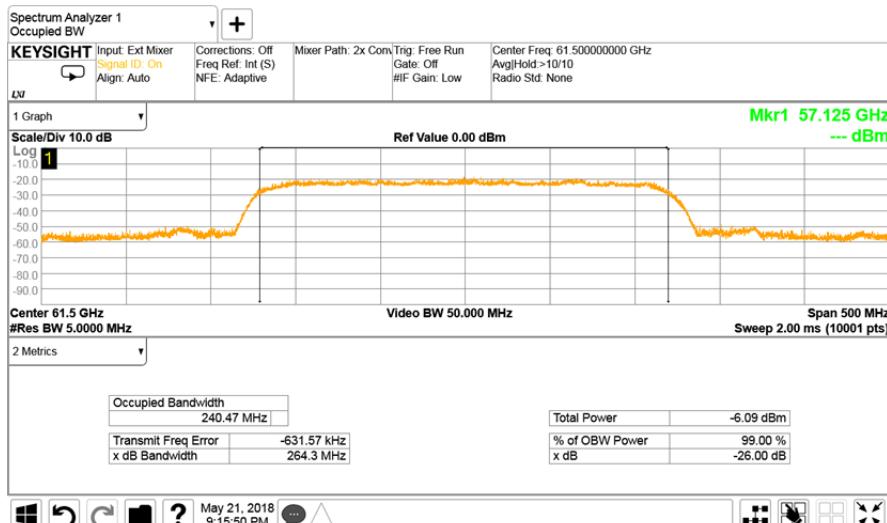


HERMON LABORATORIES

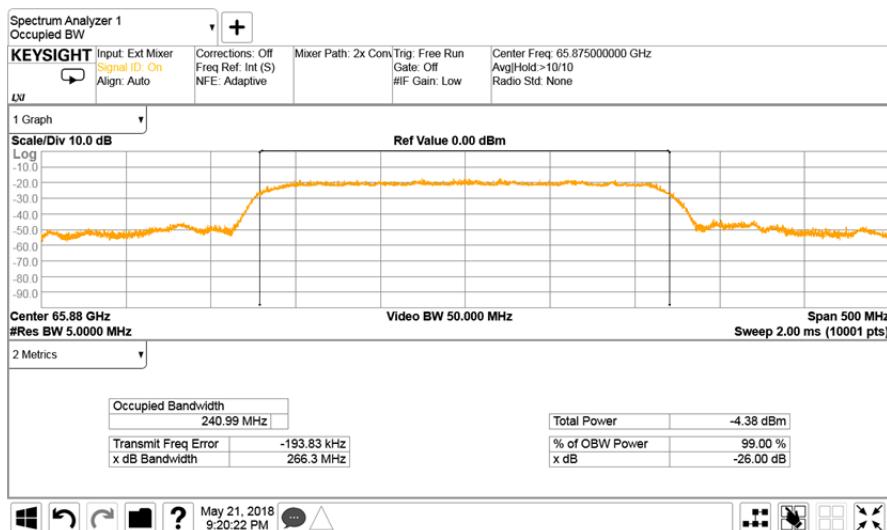
Test specification: Section 15.215(c), Occupied bandwidth		
Test procedure: 47 CFR, Section 2.1049, ANSI C63.10, Section 9.3		
Test mode: Compliance	Verdict: PASS	
Date(s): 19-Jun-18 - 27-Jun-18		
Temperature: 24.2 °C	Relative Humidity: 48 %	Air Pressure: 1009 hPa
Power: -48 VDC		
Remarks:		

Plot 7.2.47 Occupied bandwidth test result at Mid frequency

MODULATION:	2QAM
EMISSION BANDWIDTH:	250 MHz
mid frequency	61500 MHz

**Plot 7.2.48 Occupied bandwidth test result at High frequency**

MODULATION:	2QAM
EMISSION BANDWIDTH:	250 MHz
High frequency	65875 MHz



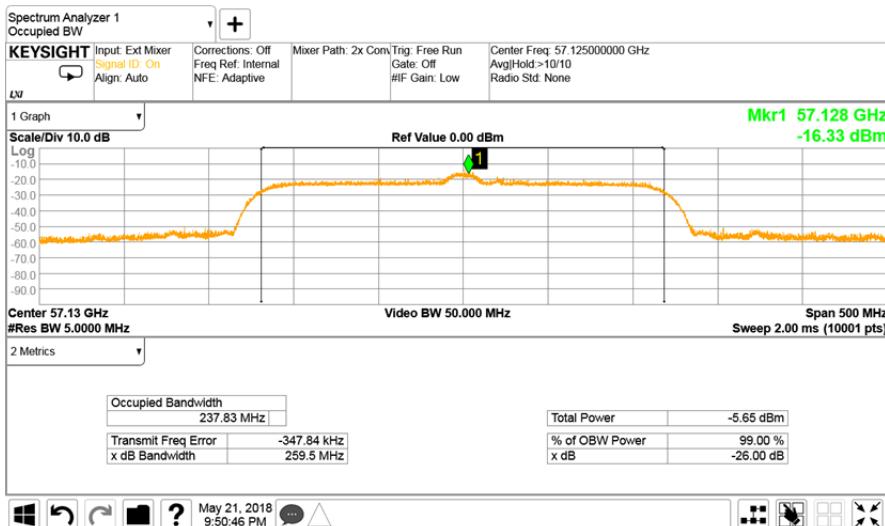


HERMON LABORATORIES

Test specification: Section 15.215(c), Occupied bandwidth		
Test procedure: 47 CFR, Section 2.1049, ANSI C63.10, Section 9.3		
Test mode: Compliance		Verdict: PASS
Date(s): 19-Jun-18 - 27-Jun-18		
Temperature: 24.2 °C	Relative Humidity: 48 %	Air Pressure: 1009 hPa
Remarks:		

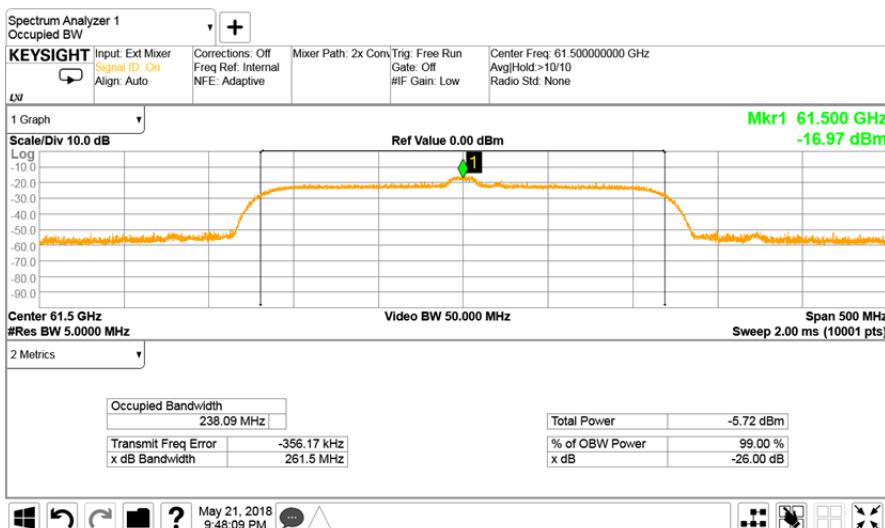
Plot 7.2.49 Occupied bandwidth test result at Low frequency

MODULATION:	4QAM
EMISSION BANDWIDTH:	250 MHz
low frequency	57125 MHz



Plot 7.2.50 Occupied bandwidth test result at Mid frequency

MODULATION:	4QAM
EMISSION BANDWIDTH:	250 MHz
mid frequency	61500 MHz



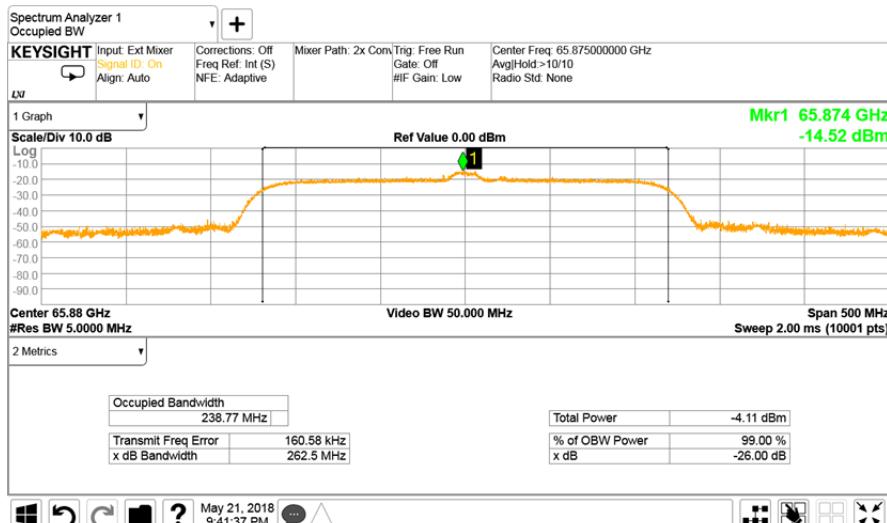


HERMON LABORATORIES

Test specification: Section 15.215(c), Occupied bandwidth		
Test procedure: 47 CFR, Section 2.1049, ANSI C63.10, Section 9.3		
Test mode: Compliance	Verdict: PASS	
Date(s): 19-Jun-18 - 27-Jun-18		
Temperature: 24.2 °C	Relative Humidity: 48 %	Air Pressure: 1009 hPa
Power: -48 VDC		
Remarks:		

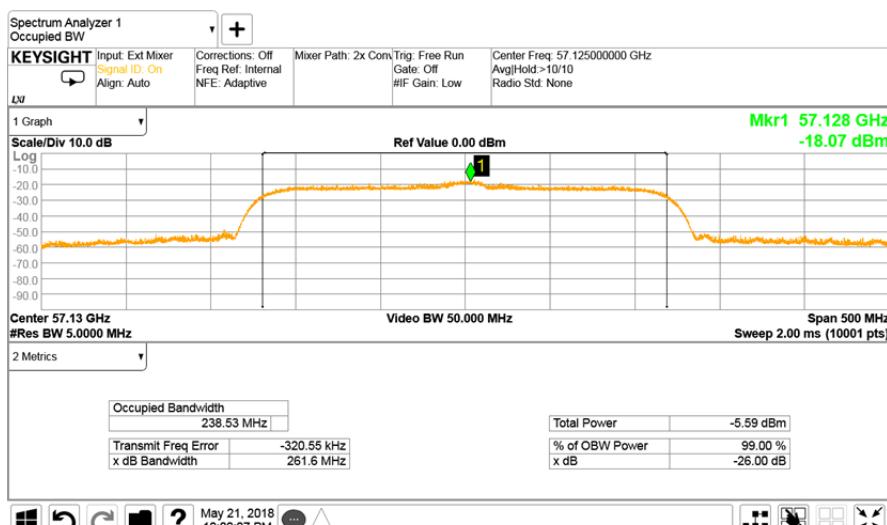
Plot 7.2.51 Occupied bandwidth test result at High frequency

MODULATION:	4QAM
EMISSION BANDWIDTH:	250 MHz
High frequency	65875 MHz



Plot 7.2.52 Occupied bandwidth test result at Low frequency

MODULATION:	8QAM
EMISSION BANDWIDTH:	250 MHz
low frequency	57125 MHz



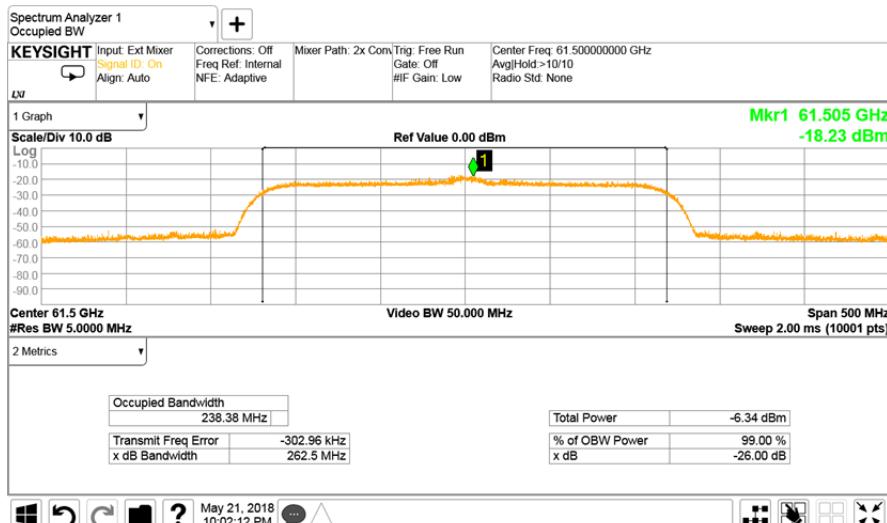


HERMON LABORATORIES

Test specification: Section 15.215(c), Occupied bandwidth		
Test procedure: 47 CFR, Section 2.1049, ANSI C63.10, Section 9.3		
Test mode: Compliance	Verdict: PASS	
Date(s): 19-Jun-18 - 27-Jun-18		
Temperature: 24.2 °C	Relative Humidity: 48 %	Air Pressure: 1009 hPa
Power: -48 VDC		
Remarks:		

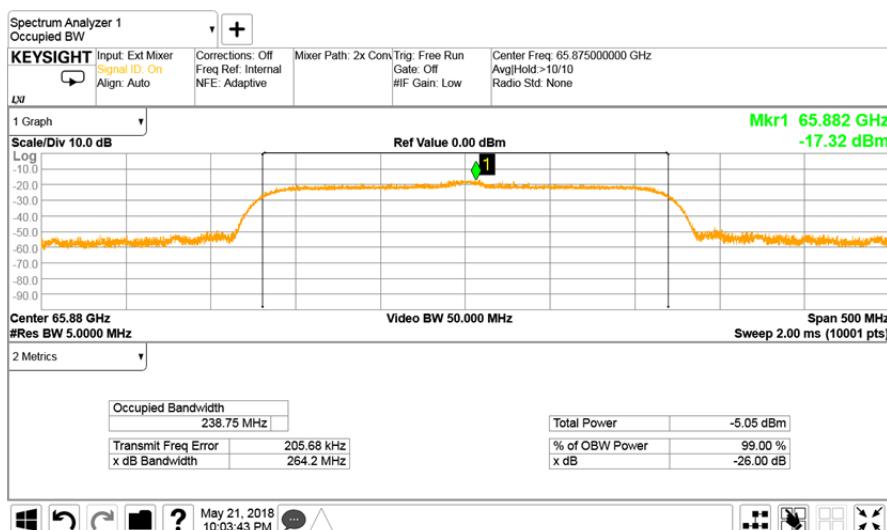
Plot 7.2.53 Occupied bandwidth test result at Mid frequency

MODULATION:	8QAM
EMISSION BANDWIDTH:	250 MHz
mid frequency	61500 MHz



Plot 7.2.54 Occupied bandwidth test result at High frequency

MODULATION:	8QAM
EMISSION BANDWIDTH:	250 MHz
High frequency	65875 MHz



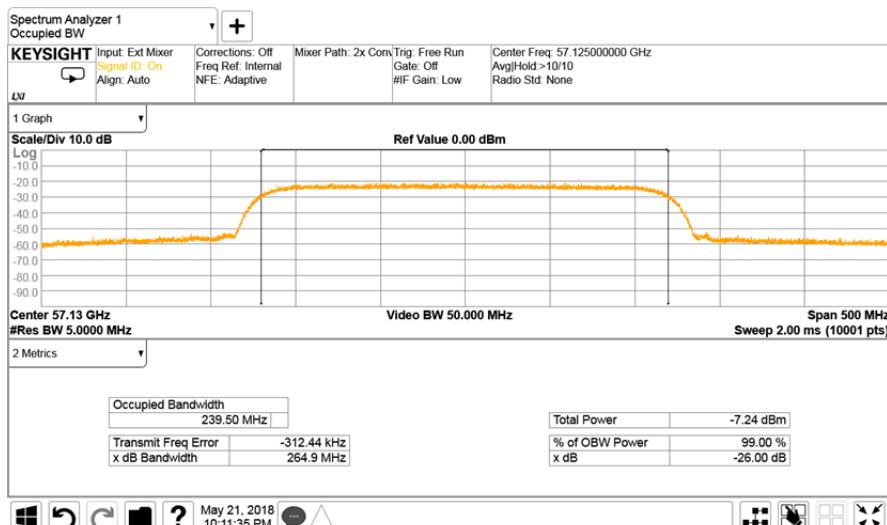


HERMON LABORATORIES

Test specification: Section 15.215(c), Occupied bandwidth		
Test procedure: 47 CFR, Section 2.1049, ANSI C63.10, Section 9.3		
Test mode: Compliance		Verdict: PASS
Date(s): 19-Jun-18 - 27-Jun-18		
Temperature: 24.2 °C	Relative Humidity: 48 %	Air Pressure: 1009 hPa
Remarks:		Power: -48 VDC

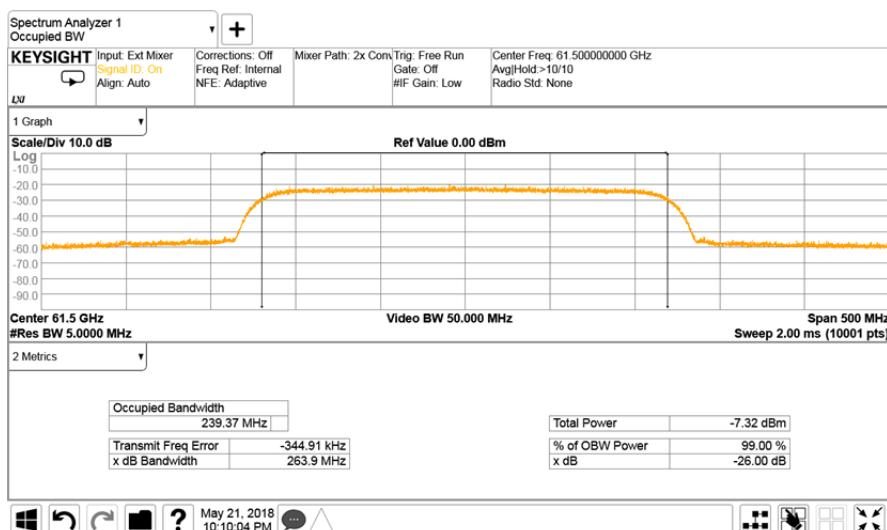
Plot 7.2.55 Occupied bandwidth test result at Low frequency

MODULATION:	16QAM
EMISSION BANDWIDTH:	250 MHz
low frequency	57125 MHz



Plot 7.2.56 Occupied bandwidth test result at Mid frequency

MODULATION:	16QAM
EMISSION BANDWIDTH:	250 MHz
mid frequency	61500 MHz





HERMON LABORATORIES

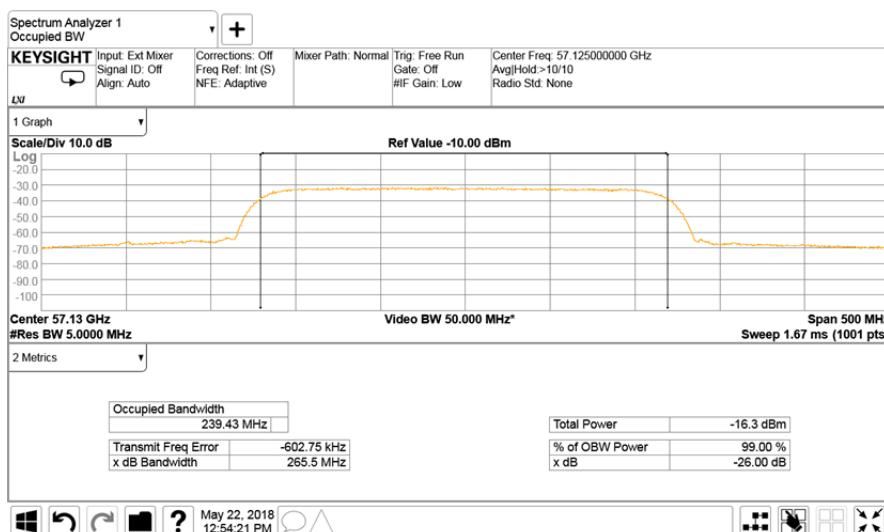
Test specification: Section 15.215(c), Occupied bandwidth		
Test procedure: 47 CFR, Section 2.1049, ANSI C63.10, Section 9.3		
Test mode: Compliance	Verdict: PASS	
Date(s): 19-Jun-18 - 27-Jun-18		
Temperature: 24.2 °C	Relative Humidity: 48 %	Air Pressure: 1009 hPa
Remarks:		

Plot 7.2.57 Occupied bandwidth test result at High frequency

MODULATION:	16QAM
EMISSION BANDWIDTH:	250 MHz
High frequency	65875 MHz

**Plot 7.2.58 Occupied bandwidth test result at Low frequency**

MODULATION:	32QAM
EMISSION BANDWIDTH:	250 MHz
low frequency	57125 MHz



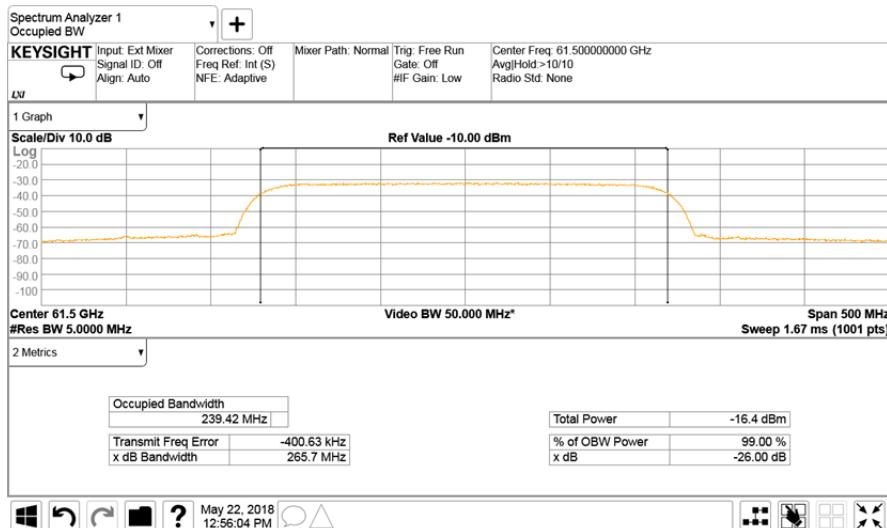


HERMON LABORATORIES

Test specification: Section 15.215(c), Occupied bandwidth		
Test procedure: 47 CFR, Section 2.1049, ANSI C63.10, Section 9.3		
Test mode: Compliance	Verdict: PASS	
Date(s): 19-Jun-18 - 27-Jun-18		
Temperature: 24.2 °C	Relative Humidity: 48 %	Air Pressure: 1009 hPa
Power: -48 VDC		
Remarks:		

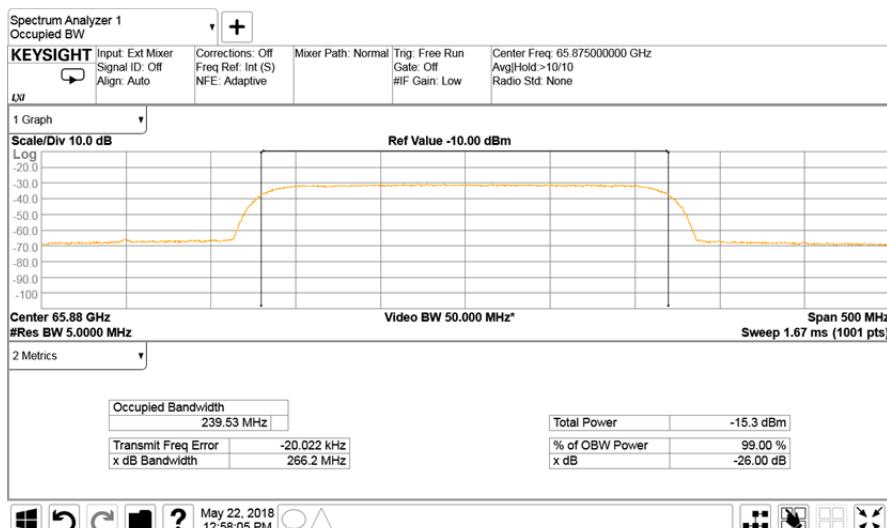
Plot 7.2.59 Occupied bandwidth test result at Mid frequency

MODULATION:	32QAM
EMISSION BANDWIDTH:	250 MHz
mid frequency	61500 MHz



Plot 7.2.60 Occupied bandwidth test result at High frequency

MODULATION:	32QAM
EMISSION BANDWIDTH:	250 MHz
High frequency	65875 MHz



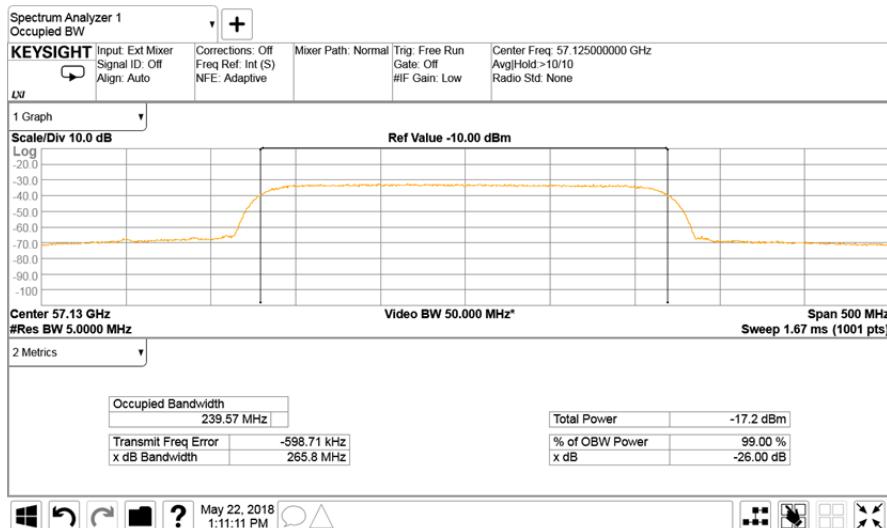


HERMON LABORATORIES

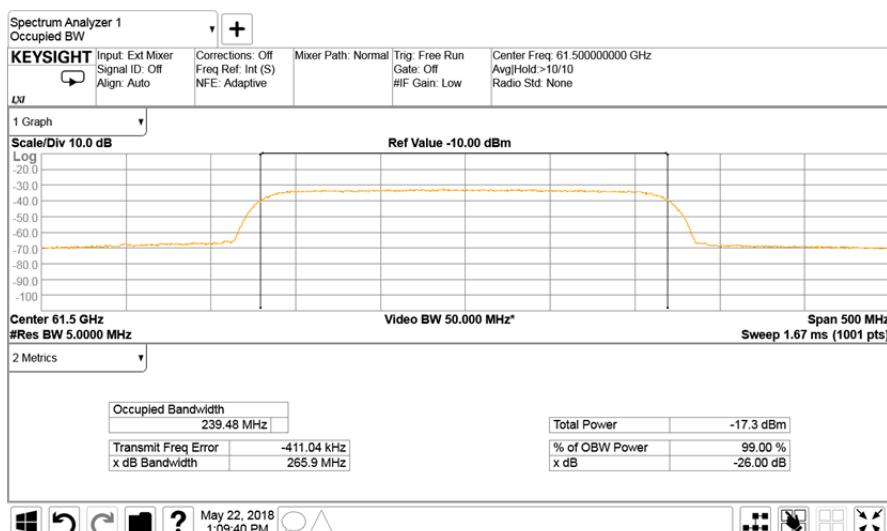
Test specification: Section 15.215(c), Occupied bandwidth		
Test procedure: 47 CFR, Section 2.1049, ANSI C63.10, Section 9.3		
Test mode: Compliance	Verdict: PASS	
Date(s): 19-Jun-18 - 27-Jun-18		
Temperature: 24.2 °C	Relative Humidity: 48 %	Air Pressure: 1009 hPa
Remarks:		

Plot 7.2.61 Occupied bandwidth test result at Low frequency

MODULATION:	64QAM
EMISSION BANDWIDTH:	250 MHz
low frequency	57125 MHz

**Plot 7.2.62 Occupied bandwidth test result at Mid frequency**

MODULATION:	64QAM
EMISSION BANDWIDTH:	250 MHz
mid frequency	61500 MHz



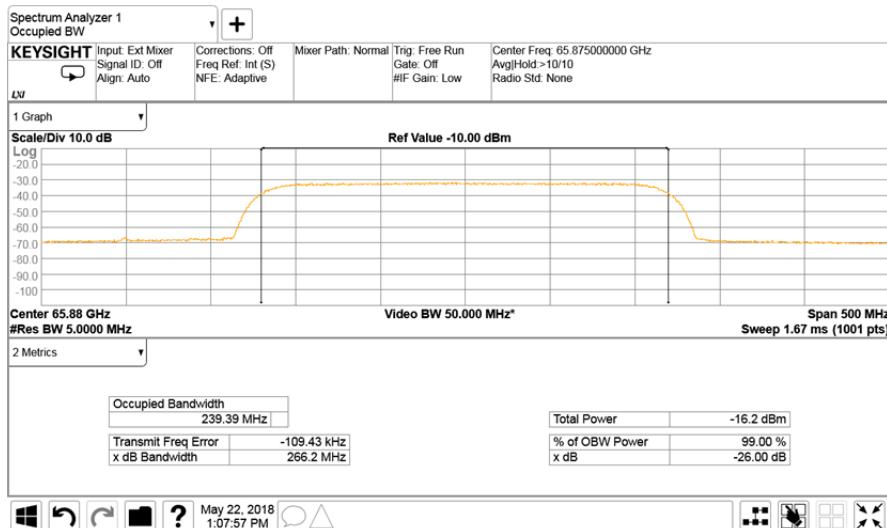


HERMON LABORATORIES

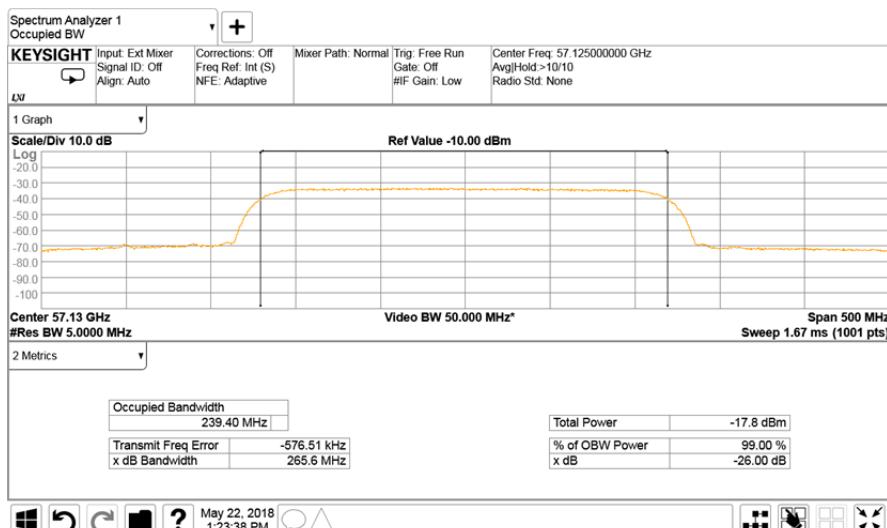
Test specification: Section 15.215(c), Occupied bandwidth		
Test procedure: 47 CFR, Section 2.1049, ANSI C63.10, Section 9.3		
Test mode: Compliance		Verdict: PASS
Date(s):	19-Jun-18 - 27-Jun-18	
Temperature: 24.2 °C	Relative Humidity: 48 %	Air Pressure: 1009 hPa
Remarks:		

Plot 7.2.63 Occupied bandwidth test result at High frequency

MODULATION:	64QAM
EMISSION BANDWIDTH:	250 MHz
High frequency	65875 MHz

**Plot 7.2.64 Occupied bandwidth test result at Low frequency**

MODULATION:	128QAM
EMISSION BANDWIDTH:	250 MHz
low frequency	57125 MHz



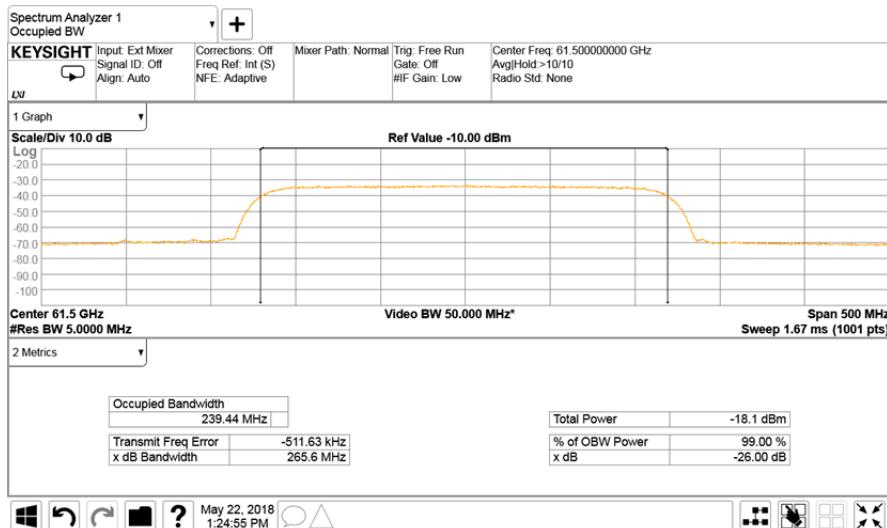


HERMON LABORATORIES

Test specification: Section 15.215(c), Occupied bandwidth		
Test procedure: 47 CFR, Section 2.1049, ANSI C63.10, Section 9.3		
Test mode: Compliance	Verdict: PASS	
Date(s): 19-Jun-18 - 27-Jun-18		
Temperature: 24.2 °C	Relative Humidity: 48 %	Air Pressure: 1009 hPa
Power: -48 VDC		
Remarks:		

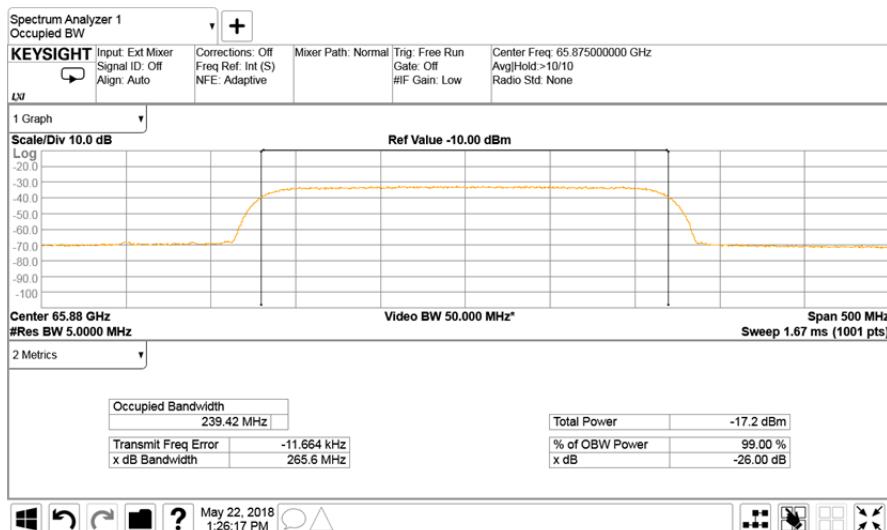
Plot 7.2.65 Occupied bandwidth test result at Mid frequency

MODULATION:	128QAM
EMISSION BANDWIDTH:	250 MHz
mid frequency	61500 MHz



Plot 7.2.66 Occupied bandwidth test result at High frequency

MODULATION:	128QAM
EMISSION BANDWIDTH:	250 MHz
High frequency	65875 MHz



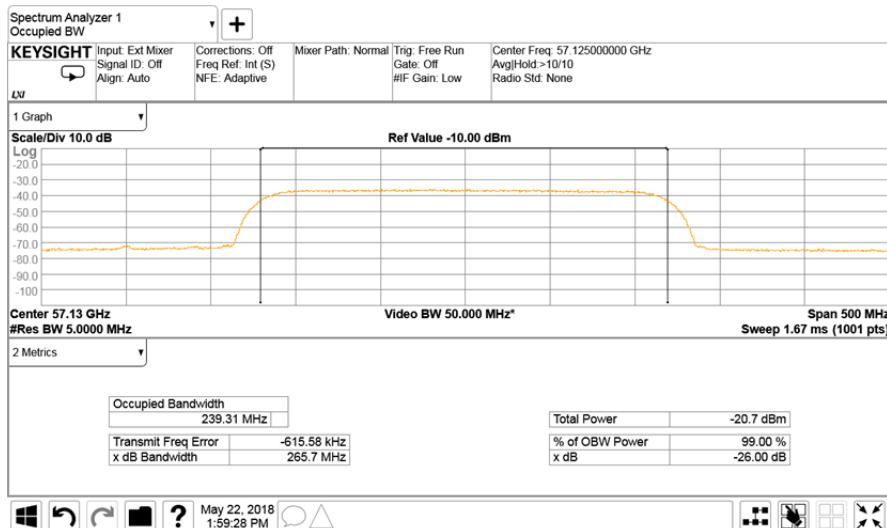


HERMON LABORATORIES

Test specification: Section 15.215(c), Occupied bandwidth		
Test procedure: 47 CFR, Section 2.1049, ANSI C63.10, Section 9.3		
Test mode: Compliance		Verdict: PASS
Date(s): 19-Jun-18 - 27-Jun-18		
Temperature: 24.2 °C	Relative Humidity: 48 %	Air Pressure: 1009 hPa
Remarks:		

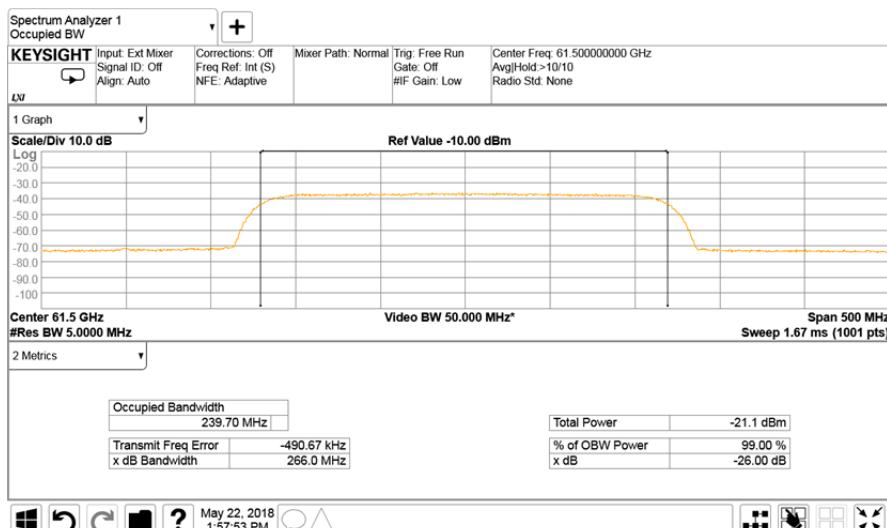
Plot 7.2.67 Occupied bandwidth test result at Low frequency

MODULATION:	256QAM
EMISSION BANDWIDTH:	250 MHz
low frequency	57125 MHz



Plot 7.2.68 Occupied bandwidth test result at Mid frequency

MODULATION:	256QAM
EMISSION BANDWIDTH:	250 MHz
mid frequency	61500 MHz





HERMON LABORATORIES

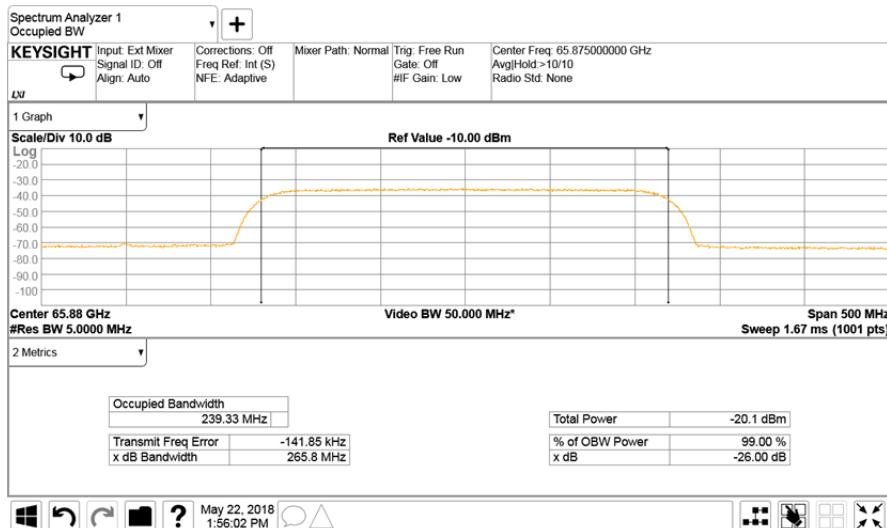
Report ID: CERRAD_FCC.30645_rev1.docx

Date of Issue: 28-Nov-18

Test specification: Section 15.215(c), Occupied bandwidth		
Test procedure: 47 CFR, Section 2.1049, ANSI C63.10, Section 9.3		
Test mode: Compliance	Verdict: PASS	
Date(s): 19-Jun-18 - 27-Jun-18		
Temperature: 24.2 °C	Relative Humidity: 48 %	Air Pressure: 1009 hPa
Remarks:		

Plot 7.2.69 Occupied bandwidth test result at High frequency

MODULATION:	256QAM
EMISSION BANDWIDTH:	250 MHz
High frequency	65875 MHz

**Plot 7.2.70 Occupied bandwidth test result at Low frequency**

MODULATION:	2QAM
EMISSION BANDWIDTH:	500 MHz
at low frequency	57250 MHz



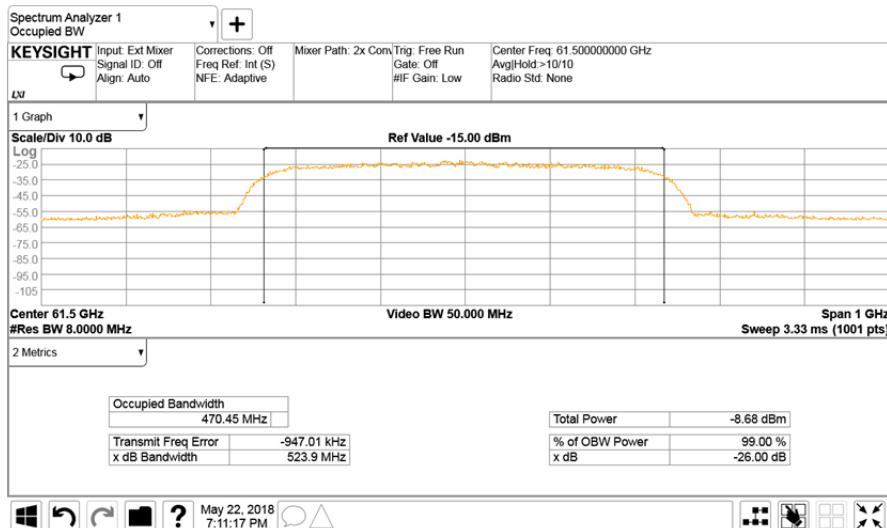


HERMON LABORATORIES

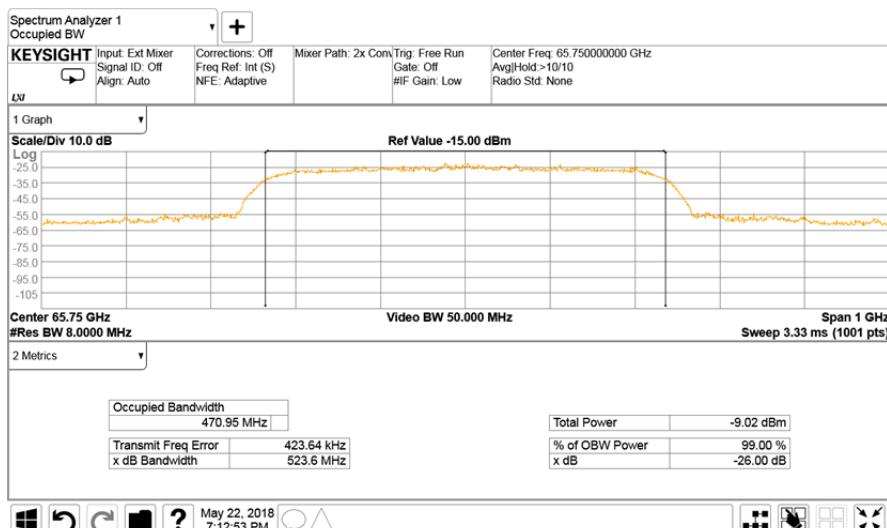
Test specification: Section 15.215(c), Occupied bandwidth		
Test procedure: 47 CFR, Section 2.1049, ANSI C63.10, Section 9.3		
Test mode: Compliance		Verdict: PASS
Date(s): 19-Jun-18 - 27-Jun-18		
Temperature: 24.2 °C	Relative Humidity: 48 %	Air Pressure: 1009 hPa
Remarks:		

Plot 7.2.71 Occupied bandwidth test result at Mid frequency

MODULATION:	2QAM
EMISSION BANDWIDTH:	500 MHz
at mid frequency	61500 MHz

**Plot 7.2.72 Occupied bandwidth test result at High frequency**

MODULATION:	2QAM
EMISSION BANDWIDTH:	500 MHz
at High frequency	65750 MHz





HERMON LABORATORIES

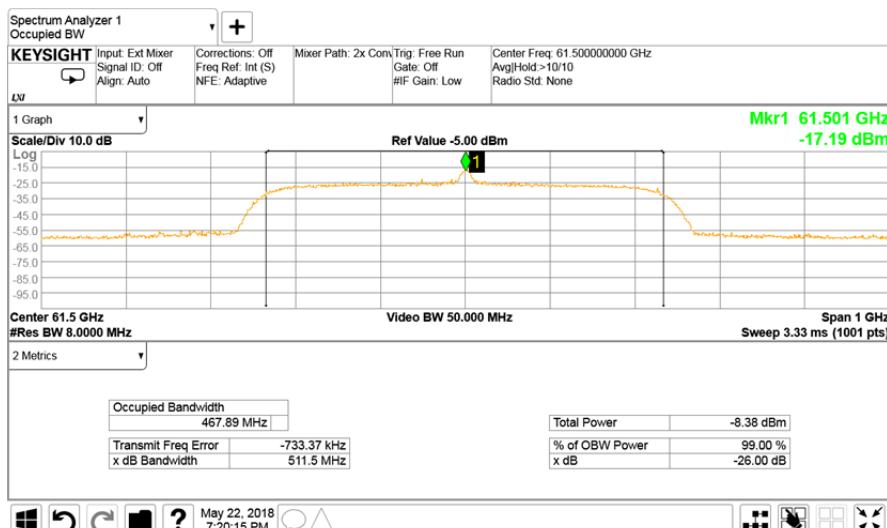
Test specification: Section 15.215(c), Occupied bandwidth		
Test procedure: 47 CFR, Section 2.1049, ANSI C63.10, Section 9.3		
Test mode: Compliance	Verdict: PASS	
Date(s): 19-Jun-18 - 27-Jun-18		
Temperature: 24.2 °C	Relative Humidity: 48 %	Air Pressure: 1009 hPa
Remarks:		

Plot 7.2.73 Occupied bandwidth test result at Low frequency

MODULATION:	4QAM
EMISSION BANDWIDTH:	500 MHz
at low frequency	57250 MHz

**Plot 7.2.74 Occupied bandwidth test result at Mid frequency**

MODULATION:	4QAM
EMISSION BANDWIDTH:	500 MHz
at mid frequency	61500 MHz





HERMON LABORATORIES

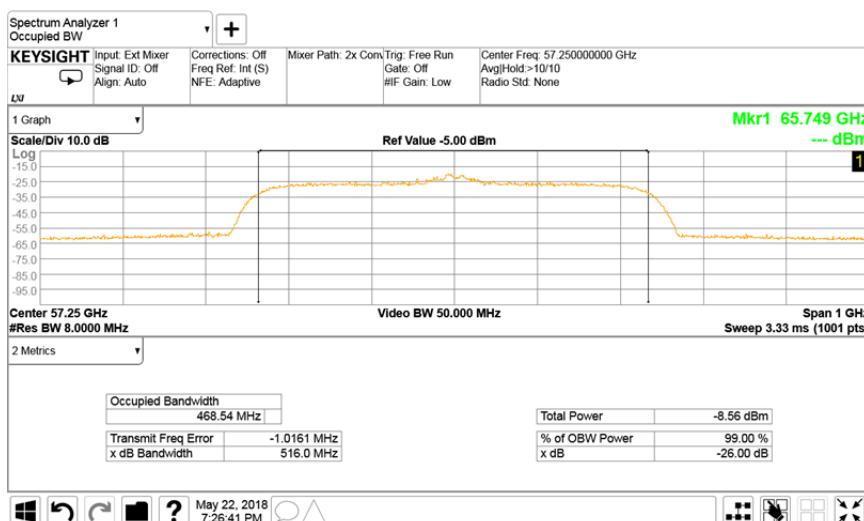
Test specification: Section 15.215(c), Occupied bandwidth		
Test procedure: 47 CFR, Section 2.1049, ANSI C63.10, Section 9.3		
Test mode: Compliance	Verdict: PASS	PASS
Date(s): 19-Jun-18 - 27-Jun-18		
Temperature: 24.2 °C	Relative Humidity: 48 %	Air Pressure: 1009 hPa
Remarks:		

Plot 7.2.75 Occupied bandwidth test result at High frequency

MODULATION:	4QAM
EMISSION BANDWIDTH:	500 MHz
at High frequency	65750 MHz

**Plot 7.2.76 Occupied bandwidth test result at Low frequency**

MODULATION:	8QAM
EMISSION BANDWIDTH:	500 MHz
at low frequency	57250 MHz



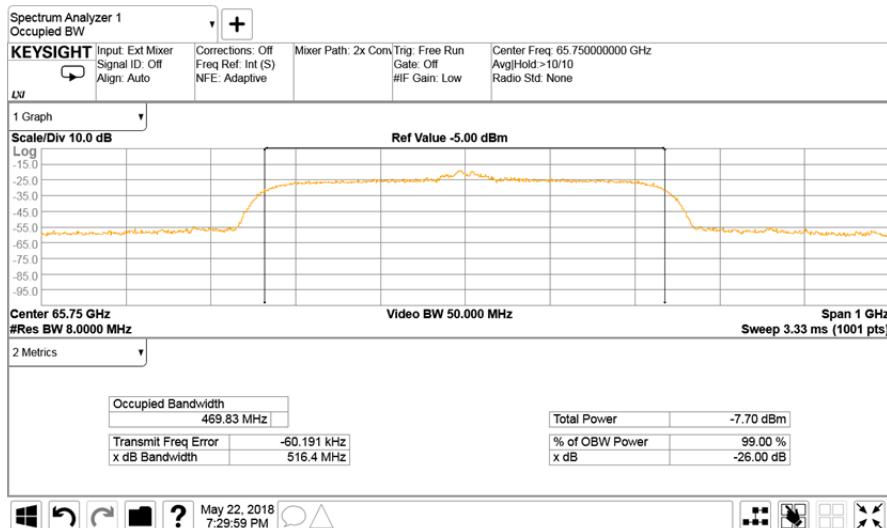


HERMON LABORATORIES

Test specification: Section 15.215(c), Occupied bandwidth		
Test procedure: 47 CFR, Section 2.1049, ANSI C63.10, Section 9.3		
Test mode: Compliance	Verdict: PASS	
Date(s): 19-Jun-18 - 27-Jun-18		
Temperature: 24.2 °C	Relative Humidity: 48 %	Air Pressure: 1009 hPa
Remarks:		

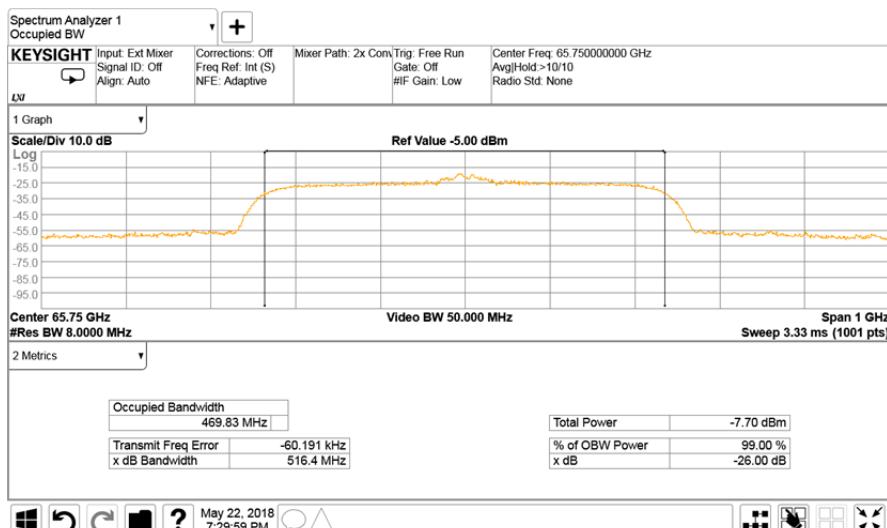
Plot 7.2.77 Occupied bandwidth test result at Mid frequency

MODULATION:	8QAM
EMISSION BANDWIDTH:	500 MHz
at mid frequency	61500 MHz



Plot 7.2.78 Occupied bandwidth test result at High frequency

MODULATION:	8QAM
EMISSION BANDWIDTH:	500 MHz
at High frequency	65750 MHz





HERMON LABORATORIES

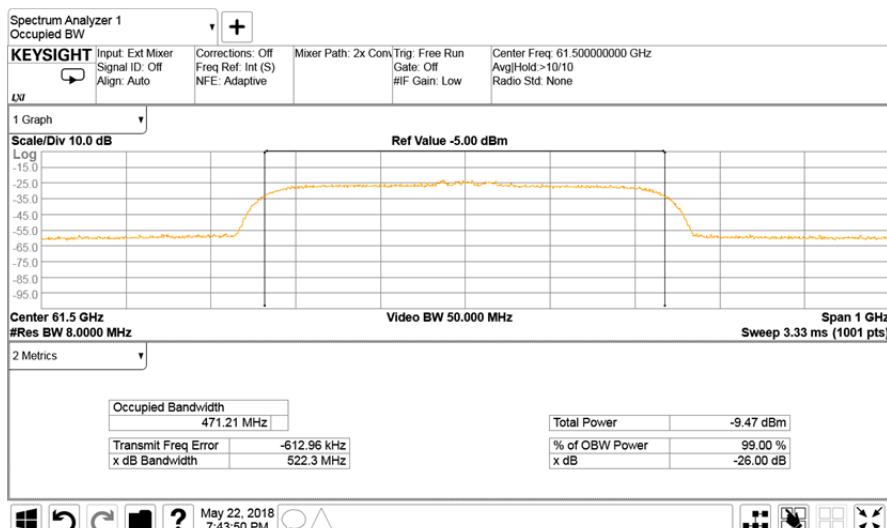
Test specification: Section 15.215(c), Occupied bandwidth		
Test procedure: 47 CFR, Section 2.1049, ANSI C63.10, Section 9.3		
Test mode: Compliance	Verdict: PASS	
Date(s): 19-Jun-18 - 27-Jun-18		
Temperature: 24.2 °C	Relative Humidity: 48 %	Air Pressure: 1009 hPa
Remarks:		

Plot 7.2.79 Occupied bandwidth test result at Low frequency

MODULATION:	16QAM
EMISSION BANDWIDTH:	500 MHz
at low frequency	57250 MHz

**Plot 7.2.80 Occupied bandwidth test result at Mid frequency**

MODULATION:	16QAM
EMISSION BANDWIDTH:	500 MHz
at mid frequency	61500 MHz





HERMON LABORATORIES

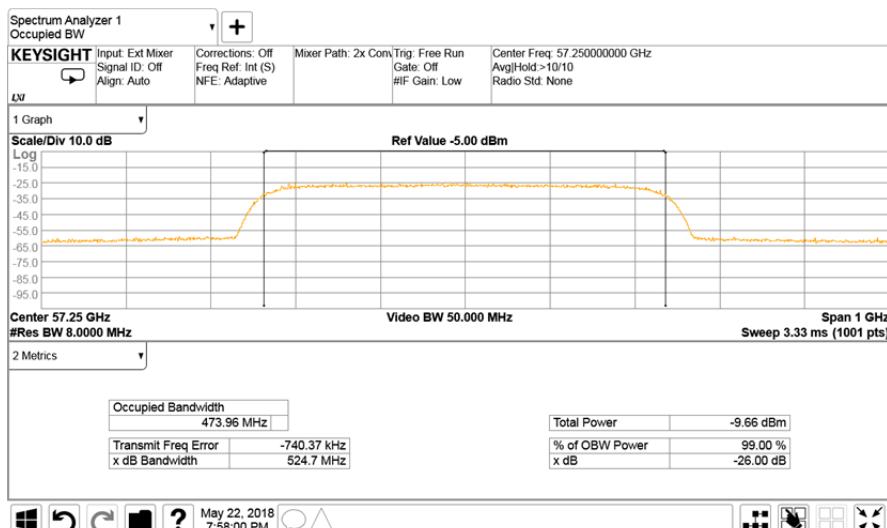
Test specification: Section 15.215(c), Occupied bandwidth		
Test procedure: 47 CFR, Section 2.1049, ANSI C63.10, Section 9.3		
Test mode: Compliance	Verdict: PASS	
Date(s): 19-Jun-18 - 27-Jun-18		
Temperature: 24.2 °C	Relative Humidity: 48 %	Air Pressure: 1009 hPa
Power: -48 VDC		
Remarks:		

Plot 7.2.81 Occupied bandwidth test result at High frequency

MODULATION:	16QAM
EMISSION BANDWIDTH:	500 MHz
at High frequency	65750 MHz

**Plot 7.2.82 Occupied bandwidth test result at Low frequency**

MODULATION:	32QAM
EMISSION BANDWIDTH:	500 MHz
at low frequency	57250 MHz





HERMON LABORATORIES

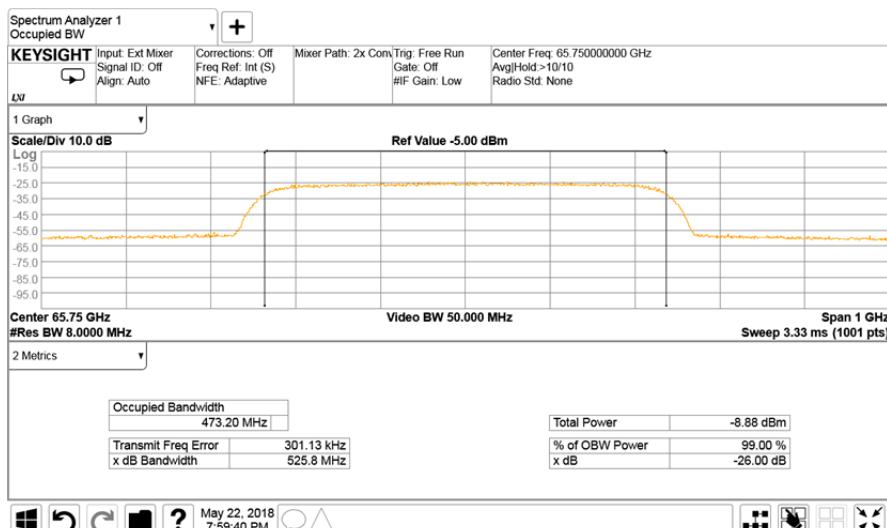
Test specification: Section 15.215(c), Occupied bandwidth		
Test procedure: 47 CFR, Section 2.1049, ANSI C63.10, Section 9.3		
Test mode: Compliance	Verdict: PASS	
Date(s): 19-Jun-18 - 27-Jun-18		
Temperature: 24.2 °C	Relative Humidity: 48 %	Air Pressure: 1009 hPa
Remarks:		

Plot 7.2.83 Occupied bandwidth test result at Mid frequency

MODULATION:	32QAM
EMISSION BANDWIDTH:	500 MHz
at mid frequency	61500 MHz

**Plot 7.2.84 Occupied bandwidth test result at High frequency**

MODULATION:	32QAM
EMISSION BANDWIDTH:	500 MHz
at High frequency	65750 MHz



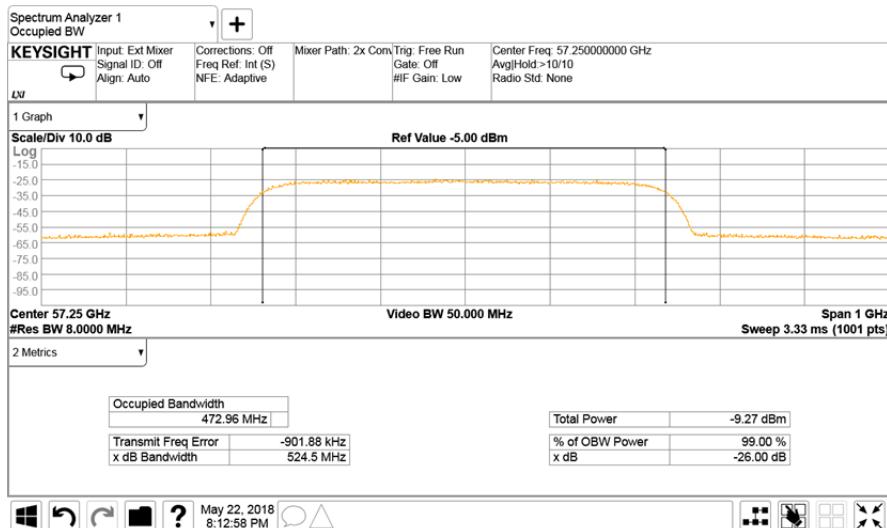


HERMON LABORATORIES

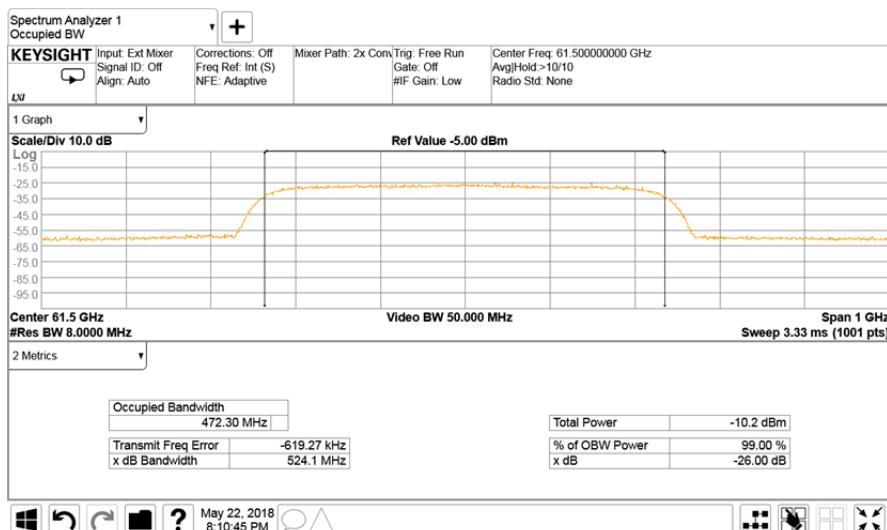
Test specification: Section 15.215(c), Occupied bandwidth		
Test procedure: 47 CFR, Section 2.1049, ANSI C63.10, Section 9.3		
Test mode: Compliance	Verdict: PASS	
Date(s): 19-Jun-18 - 27-Jun-18		
Temperature: 24.2 °C	Relative Humidity: 48 %	Air Pressure: 1009 hPa
Remarks:		

Plot 7.2.85 Occupied bandwidth test result at Low frequency

MODULATION:	64QAM
EMISSION BANDWIDTH:	500 MHz
at low frequency	57250 MHz

**Plot 7.2.86 Occupied bandwidth test result at Mid frequency**

MODULATION:	64QAM
EMISSION BANDWIDTH:	500 MHz
at mid frequency	61500 MHz





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Test specification: Section 15.215(c), Occupied bandwidth		
Test procedure: 47 CFR, Section 2.1049, ANSI C63.10, Section 9.3		
Test mode: Compliance	Verdict: PASS	
Date(s): 19-Jun-18 - 27-Jun-18		
Temperature: 24.2 °C	Relative Humidity: 48 %	Air Pressure: 1009 hPa
Remarks:		

Plot 7.2.87 Occupied bandwidth test result at High frequency

MODULATION:	64QAM
EMISSION BANDWIDTH:	500 MHz
at High frequency	65750 MHz

