

Port 2			
Modulation:	QPSK	Modulation:	QPSK
Channel:	Low	Channel:	Middle
Modulation:	QPSK	Modulation:	16QAM
Channel:	High	Channel:	Low
Modulation:	16QAM	Modulation:	16QAM
Channel:	Middle	Channel:	High

Port 2			
Modulation:	64QAM	Modulation:	64QAM
Channel:	Low	Channel:	Middle
Modulation:	64QAM	Modulation:	256QAM
Channel:	High	Channel:	Low
Modulation:	256QAM	Modulation:	256QAM
Channel:	Middle	Channel:	High

Port 3			
Modulation:	QPSK	Modulation:	QPSK
Channel:	Low	Channel:	Middle
Modulation:	QPSK	Modulation:	16QAM
Channel:	High	Channel:	Low
Modulation:	16QAM	Modulation:	16QAM
Channel:	Middle	Channel:	High

Port 3			
Modulation:	64QAM	Modulation:	64QAM
Channel:	Low	Channel:	Middle
Modulation:	64QAM	Modulation:	256QAM
Channel:	High	Channel:	Low
Modulation:	256QAM	Modulation:	256QAM
Channel:	Middle	Channel:	High

[Max Power for Clip-on Ant] Plots of PSD and Output Power - 20 MHz Bandwidth + 20 MHz Bandwidth + 20 MHz Bandwidth + 20 MHz Bandwidth/ 4 Carriers

Port 0			
Modulation:	QPSK	Modulation:	QPSK
Channel:	Low	Channel:	Middle
Modulation:	QPSK	Modulation:	16QAM
Channel:	High	Channel:	Low
Modulation:	16QAM	Modulation:	16QAM
Channel:	Middle	Channel:	High

Port 0			
Modulation:	64QAM	Modulation:	64QAM
Channel:	Low	Channel:	Middle
Modulation:	64QAM	Modulation:	256QAM
Channel:	High	Channel:	Low
Modulation:	256QAM	Modulation:	256QAM
Channel:	Middle	Channel:	High

Port 1			
Modulation:	QPSK	Modulation:	QPSK
Channel:	Low	Channel:	Middle
Modulation:	QPSK	Modulation:	16QAM
Channel:	High	Channel:	Low
Modulation:	16QAM	Modulation:	16QAM
Channel:	Middle	Channel:	High

Port 1			
Modulation:	64QAM	Modulation:	64QAM
Channel:	Low	Channel:	Middle
Modulation:	64QAM	Modulation:	256QAM
Channel:	High	Channel:	Low
Modulation:	256QAM	Modulation:	256QAM
Channel:	Middle	Channel:	High

Port 2			
Modulation:	QPSK	Modulation:	QPSK
Channel:	Low	Channel:	Middle
Modulation:	QPSK	Modulation:	16QAM
Channel:	High	Channel:	Low
Modulation:	16QAM	Modulation:	16QAM
Channel:	Middle	Channel:	High

Port 2			
Modulation:	64QAM	Modulation:	64QAM
Channel:	Low	Channel:	Middle
Modulation:	64QAM	Modulation:	256QAM
Channel:	High	Channel:	Low
Modulation:	256QAM	Modulation:	256QAM
Channel:	Middle	Channel:	High

Port 3			
Modulation:	QPSK	Modulation:	QPSK
Channel:	Low	Channel:	Middle
Modulation:	QPSK	Modulation:	16QAM
Channel:	High	Channel:	Low
Modulation:	16QAM	Modulation:	16QAM
Channel:	Middle	Channel:	High

Port 3			
Modulation:	64QAM	Modulation:	64QAM
Channel:	Low	Channel:	Middle
Modulation:	64QAM	Modulation:	256QAM
Channel:	High	Channel:	Low
Modulation:	256QAM	Modulation:	256QAM
Channel:	Middle	Channel:	High

7. OCCUPIED BANDWIDTH

FCC Rules

Test Requirements:

§ 2.1049 Measurements required: Occupied bandwidth.

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured under the specified conditions of § 2.1049 (a) through (i) as applicable.

Test Procedures:

The measurement is performed in accordance with Section 5.4.3 and 5.4.4 of ANSI C63.26.

5.4.3 Occupied bandwidth—Relative measurement procedure

a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the spectrum analyzer shall be wide enough to see sufficient roll off of the signal to make the measurement.

b) The nominal RBW shall be in the range of 1% to 5% of the anticipated OBW, and the VBW shall be set $\geq 3 \times$ RBW.

c) Set the reference level of the instrument as required to prevent the signal amplitude from exceeding the maximum spectrum analyzer input mixer level for linear operation. See guidance provided in 4.2.3.

NOTE—Step a), step b), and step c) may require iteration to adjust within the specified tolerances.

d) The dynamic range of the spectrum analyzer at the selected RBW shall be more than 10 dB below the target “-X dB” requirement, i.e., if the requirement calls for measuring the -26 dB OBW, the spectrum analyzer noise floor at the selected RBW shall be at least 36 dB below the reference level.

e) Set spectrum analyzer detection mode to peak, and the trace mode to max hold.

f) Determine the reference value by either of the following:

1) Set the EUT to transmit a modulated signal. Allow the trace to stabilize. Set the spectrum analyzer marker to the highest level of the displayed trace (this is the reference value).

2) Set the EUT to transmit an unmodulated carrier. Set the spectrum analyzer marker to the level of the carrier.

g) Determine the “-X dB amplitude” as equal to (Reference Value - X). Alternatively, this calculation can be performed on the spectrum analyzer using the delta-marker measurement function.

h) If the reference value was determined using an unmodulated carrier, turn the EUT modulation on, then either clear the existing trace or start a new trace on the spectrum analyzer and allow the new trace to stabilize. Otherwise the trace from step f) shall be used for step i).

i) Place two markers, one at the lowest and the other at the highest frequency of the envelope of the spectral display such that each marker is at or slightly below the “-X dB amplitude” determined in