

VIAVI

CellAdvisor 28 GHz Spectrum Analyzer Module

VIAVI Solutions® has been working with mobile service providers and network equipment manufacturers (NEMs) who are leading 5G adoption to ensure they can continue to use their current field test solution, CellAdvisor™ JD780A/B and JD740B series, by offering a CellAdvisor 28 GHz frequency downconverter (28GDC). The 28GDC extends CellAdvisor’s capability to analyze spectrum and interference of 5G signals in the 28 GHz spectrum.

The 5G revolution is introducing new radio access technology for high-frequency spectrum in the range of 30 GHz. Also referred as millimeter wave (mm-Wave), the licensed spectrum in 28 GHz that was repurposed from local multipoint distribution systems (LMDS) opened 2.5 GHz of spectrum for wireless services. This is significantly more than the current spectrum of 1.4 GHz (700 MHz to 2100 MHz) allocated for mobile services.

As mobile service providers continue their journey toward 5G, they need test solutions that give them visibility into this new spectrum to assess possible interfering signals, as well as the RF profile characteristics of 5G signals, including power levels and frequency allocation.

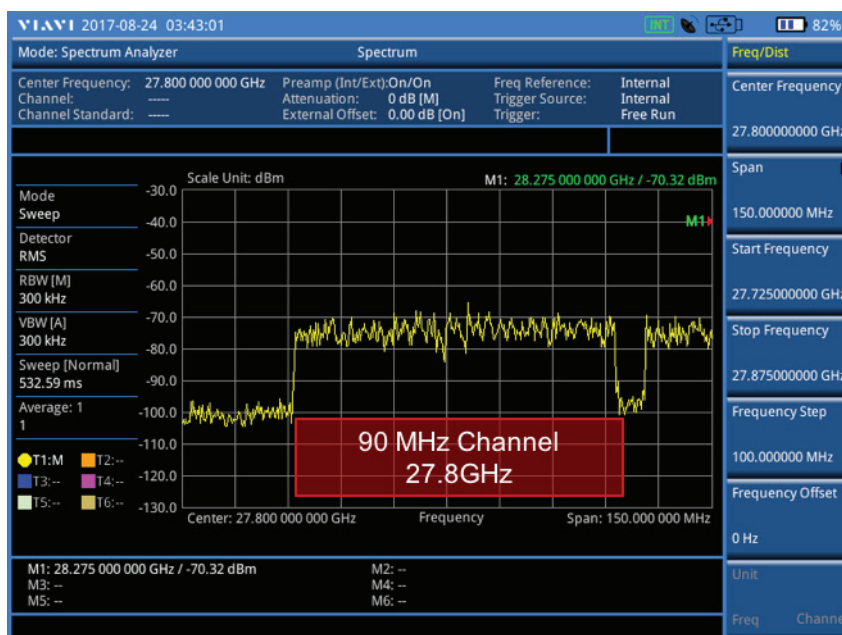


Figure 1. CellAdvisor 28GDC 28 GHz Spectrum Analysis

CellAdvisor is the first multi-function field test solution in the market capable of performing cell site installation and maintenance tests of 2G, 3G, 4G, and 5G networks.

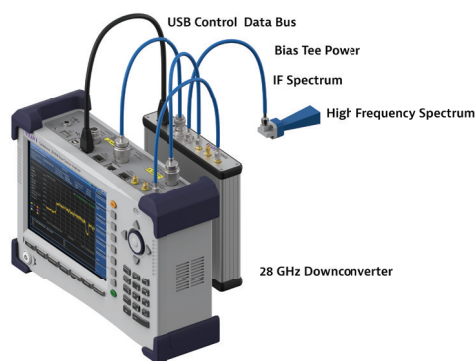
CellAdvisor 28GDC solution includes the following accessories:

- Quick start guide
- LAN cable as the communication interface to the 28GDC
- Bias-tee cable, providing power to the 28GDC
- Frequency reference cable, providing frequency reference to the CellAdvisor
- Intermediate frequency (IF) cable, providing 28 GHz characteristics in low frequency

Features and Specifications

Highlights and capabilities

- Extends CellAdvisor interference analysis capability to 28 GHz band
- Highly stable RF measurements of mm-Wave frequencies
- Cost effective and field upgradable path for existing CellAdvisor customers
- Minimal training required for field technicians to perform 5G spectrum and interference analysis



CellAdvisor with 28GDC

Ordering information

Part Number	Description
JD780B28GDC	28 GHz down-converter of JD740B, JD780A and JD780B series (CellAdvisor JD700 requires Bias-Tee option 002)
Recommended Options	
JD70050344	Soft carrying case for JD740B/JD780B with 28 GHz downconverter
G700050370	RF directional horn antenna kit, K(f), 26.5 GHz to 40 GHz, 15 dBi
G700050550	RF cable DC to 40 GHz, K(m) to K (m), 0.8 m

General Specifications

Item	Description	Remarks
Frequency Range	27 to 30 GHz	
Frequency Reference	100 kHz	
Bandwidth		
RBW	1 Hz to 3 MHz	
VBW	1 Hz to 3 MHz	
Amplitude		
Measurement Range	DANL to -10 dBm	
Maximum Safe level Input	+10 dBm peak, ±10 VDC	
Amplitude Accuracy	+/- 2.5 dB (Typical)	
Dynamic Range		
DANL	1 Hz RBW, 50 Ω termination, 0dB attenuation, RMS Detector <ul style="list-style-type: none"> · Normal -135 dBm (Typical) · Preamp on downconverter: -145 dBm (Typical) · Preamp on downconverter and CellAdvisor: -155 dBm (Typical) 	Preamp Off Exception -80 dBm @ 29.5 GHz
General		
VSWR	270 GHz to 274 GHz 2.2:1 (Typical) < 274 GHz to 30.0 GHz 2.0:1 (Typical)	
Reference Out	Connector: SMA (f) Output Level: 0 dBm min Frequency: 10 MHz	
Connector	K connector (2.92 mm)	
Operating Temperature	-10° to 55° C	
Storage	-40° C to 71° C	
Warranty	a year warranty	
Size	165x140x31 mm	
Weight	<1 kg	JD780B28GDC



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