

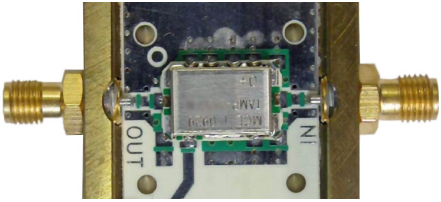
UMTS (WCDMA) PERFORMANCE VS. OUTPUT POWER (TAMP-242GLN+) AN-60-043

WCDMA Drop-In Low Noise Amplifier Module

Mini-Circuits TAMP-242GLN+ Ultra-low Noise Drop-In Amplifier Module is an ideal low noise amplifier for use in UMTS (WCDMA) Base Station or Tower Mounted Low Noise Applications. The TAMP-242GLN+ provides a optimized combination of critical performance: Low Noise / High Dynamic Range/ In-pu & Output Match / Unconditional Stability.

The High IP3 enables extremely low intermodulation and EVM distortion, making this an ideal high gain LNA for WCDMA signals. The multi-stage E-PHEMT based module provides typically +42 dBm OIP3 which translates to extremely linear performance in systems that require high dynamic range.

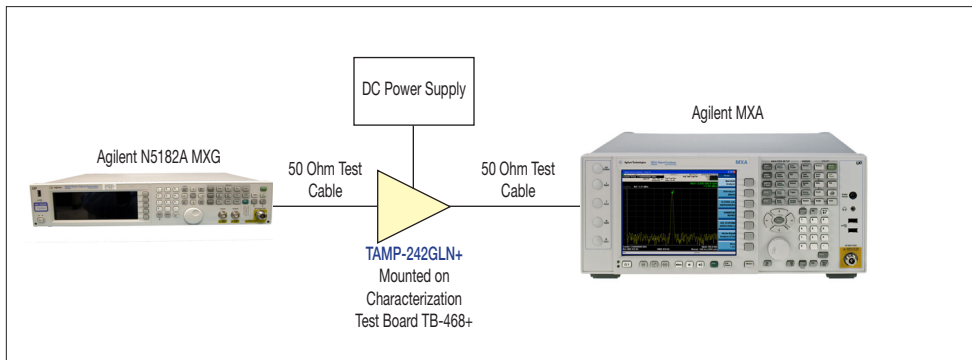
[Click here for data sheet and other technical information](#)



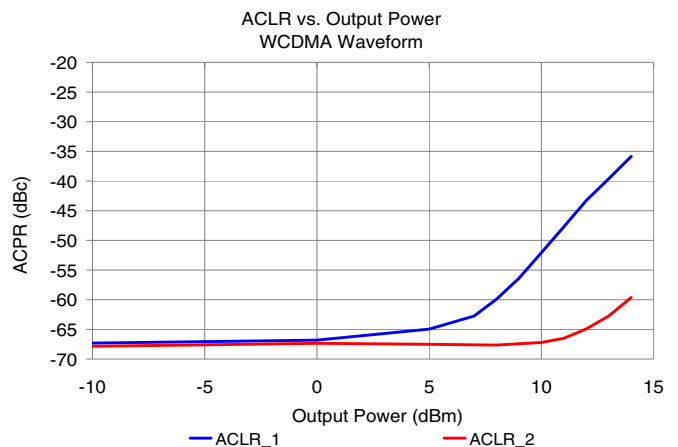
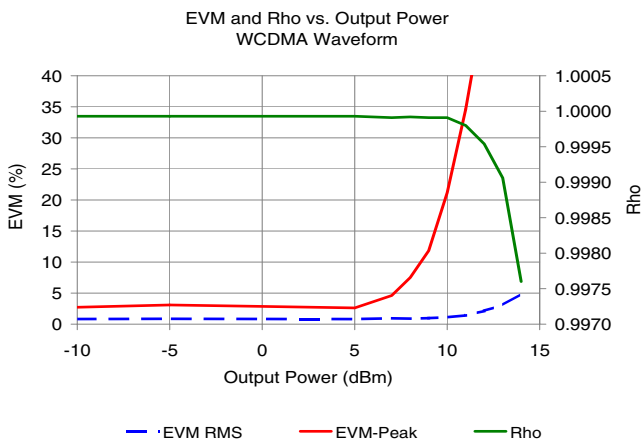
DUT CONFIGURATION	CCDF	
Device: TAMP-242GLN+ Test Board	10%	3.66 dB
Supply Voltage: 5.0V, 150mA	1.0%	6.76 dB
Temperature: 25°C	0.1%	10.12 dB
	0.001%	11.09 dB
	0.0001%	11.37 dB

TEST SIGNAL
WCDMA
Fc=2100 MHz
Single Carrier
Chip Rate: 3.84 mcps
64 Channels - ON

Measurement Set-up



Summary Data



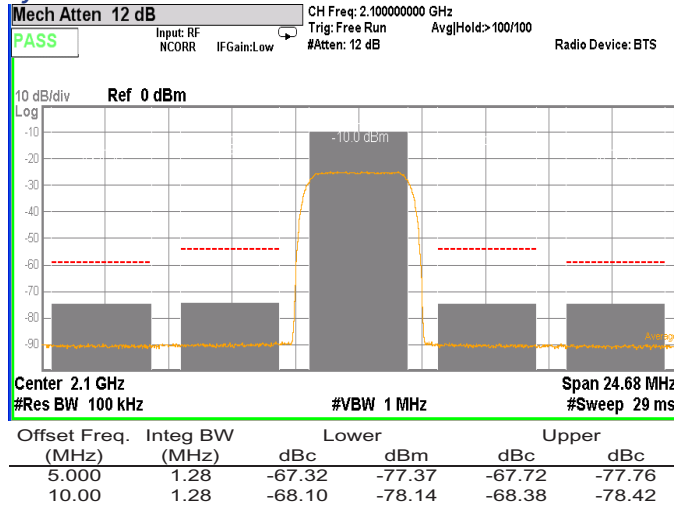
For detailed performance specs & shopping online see web site

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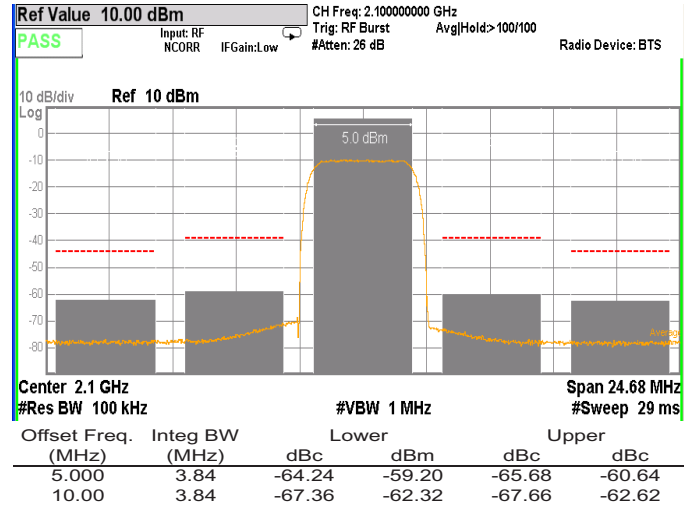
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ACLR_1 Plots vs. Output Power

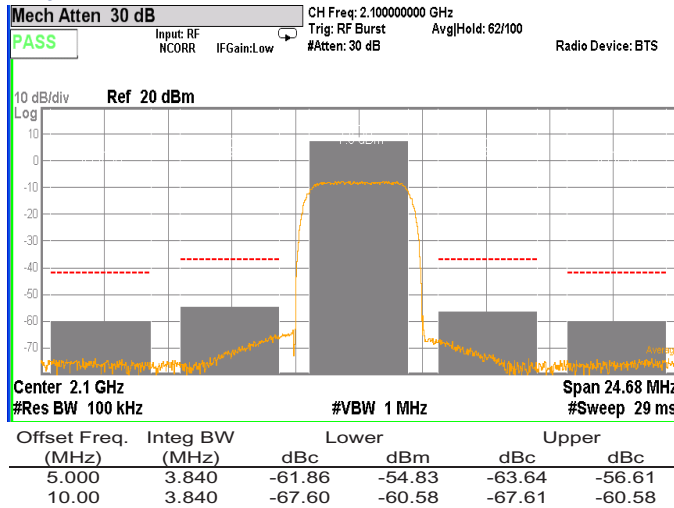
System Reference



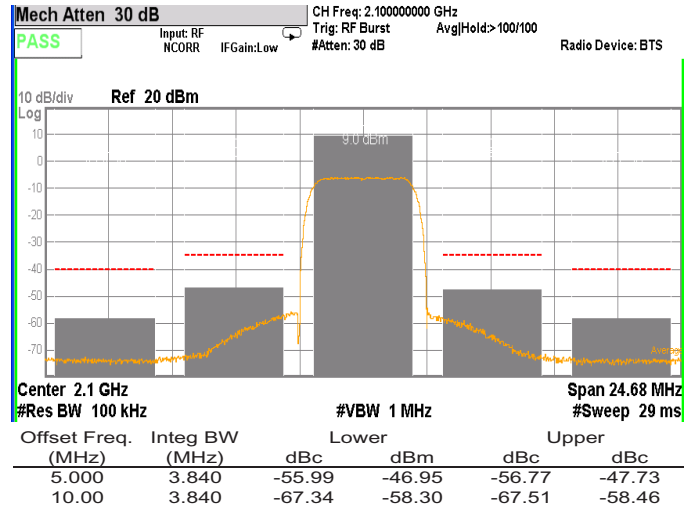
+5 dBm



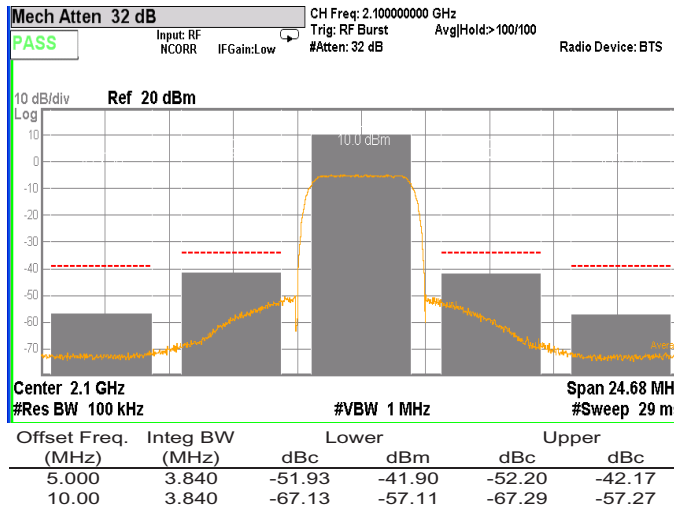
+7 dBm



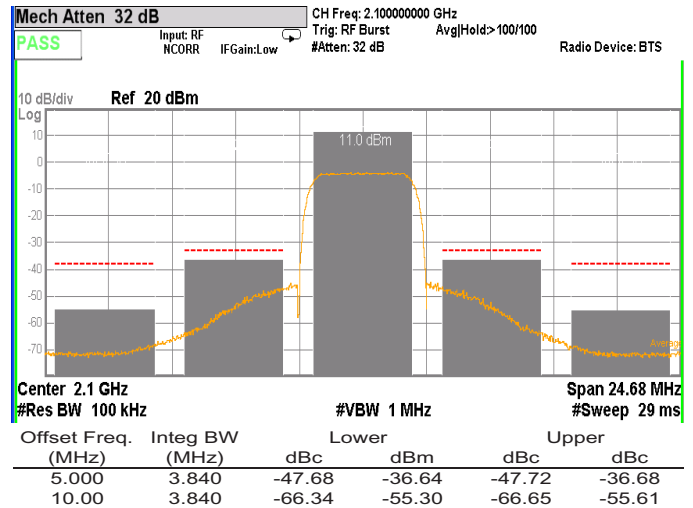
+9 dBm



+10 dBm



+11 dBm



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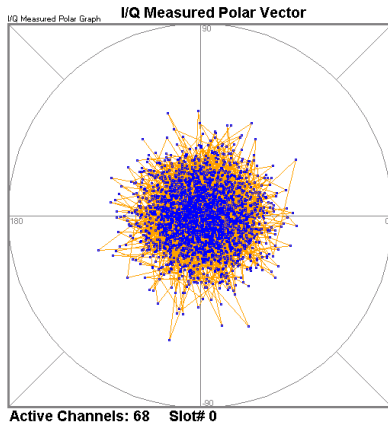
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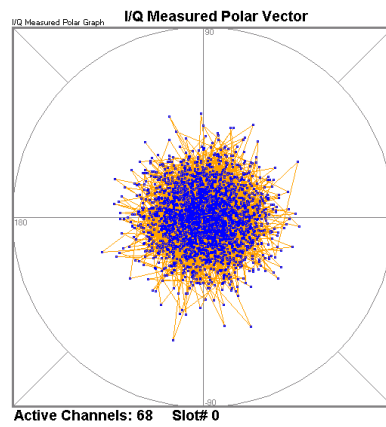
IQ Polar Plots vs. Output Power (EVM, Rho and PCDE)

System Reference

+5 dBm



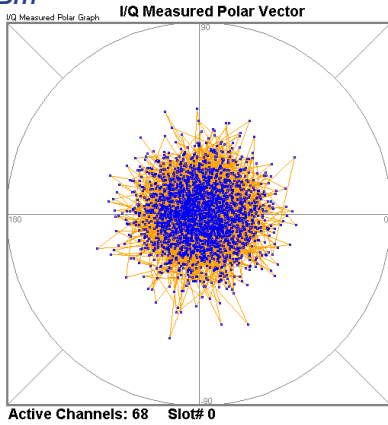
Slot# 0
 Rho: 0.99993
 EVM: 0.84% Rms
 2.92% pk
 Pk CDE: -59.45 dB
 At C8 (45)



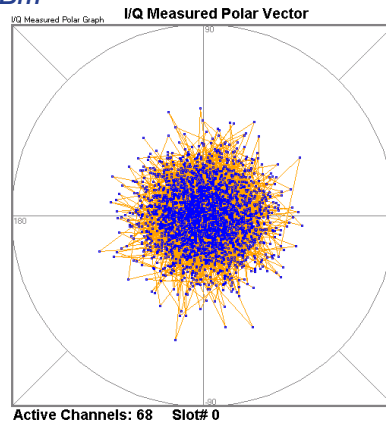
Slot# 0
 Rho: 0.99993
 EVM: 0.82% Rms
 2.62% pk
 Pk CDE: -59.87 dB
 At C8 (44)

+7 dBm

+9 dBm



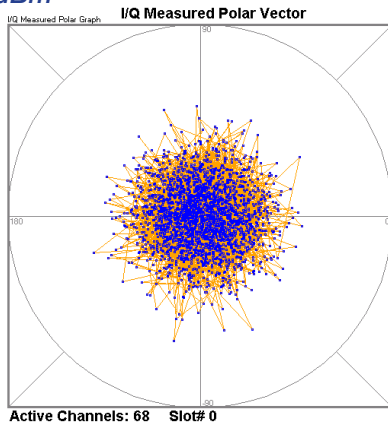
Slot# 0
 Rho: 0.99991
 EVM: 0.94% Rms
 4.61% pk
 Pk CDE: -57.39 dB
 At C8 (0)



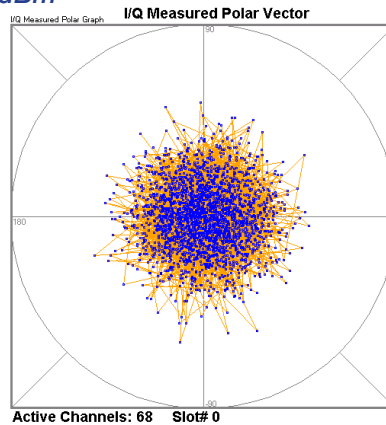
Slot# 0
 Rho: 0.99991
 EVM: 0.97% Rms
 11.83% pk
 Pk CDE: -59.00 dB
 At C8 (0)

+10 dBm

+11 dBm



Slot# 0
 Rho: .99988
 EVM: 1.11% Rms
 21.18% pk
 Pk CDE: -57.56 dB
 At C8 (0)



Slot# 0
 Rho: 0.99980
 EVM: 1.42% Rms
 34.59% pk
 Pk CDE: -56.37 dB
 At C8 (53)



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