

Table 2. Tx Measurement Matrix

Test	Tx Components								
	Tx Assembly	Power Amplifier	Switched Amplifier	PLL/DDS Oscillator	Fast Switched Attenuator	QPSK Modulator	Low Power Limiter	RF Bandpass Filter	Mixer Test (Up Convert)
DC Bias & Control Line Currents/Low Freq Voltage	X	X	X	X	X	X			X
Low Freq Voltage – Temp Sensor	X	X	X	X	X	X	X	X	X
IF Oscillator Frequency	X								
RF Out Frequency	X				X				
Isolation (Tx/Rx, RF/IF/LO – up to 23 dBm)	X								X
Pout vs. Frequency	X	X		X		X			
Pout vs. Pin (includes P _{1dB compression})	X	X	X		X		X		X
Gain vs. Frequency at some Pin			X						
Gain Flatness			X						
Pout Flatness			X				X		
Efficiency vs. Frequency			X						
RF Envelope Timing Parameters (t _r , t _f , t _{on} , pulse width)	X	X					X		
General Timing Measurements						X		X	
200 nSec turn off (150 dB dynamic range)			X						
AM to PM Evaluation			X						
IP3 Two Tone 3rd Order Intercept		X	X		X				X
Stability Into All Phase Load During TXP Modulation			X	X					
Harmonic Content and Spurs			X						
S11/S22/S33 Return Loss				X		X	X	X	X
High Power Return Loss									X
S21 Gain/Rejection				X		X	X	X	X
Group Delay									
Time Domain Impulse Response									
0 Time Fed Thru									
3 rd and 5 th Order Time Products									
Noise Figure				X					X
Phase Noise					X				
Frequency Tuning Speed					X				
Frequency Pulling Into All Phase 2:1 VSWR					X				
Spurious Spectral Content					X		X		
Insertion Phase vs. Frequency							X		
Phase and Amplitude Imbalance Between all Phase States							X		
Conversion Loss (Maybe S21)									X

Table 3. Rx Measurement Matrix

Measurements	Rx Components					
	<i>Rx Assembly</i>	<i>Switched Amplifier</i>	<i>IF Bandpass Filter</i>	<i>IF Oscillator</i>	<i>Dynamic Modulator</i>	<i>Mixer Test (Dn Convert)</i>
DC Bias & Control Line Currents/Low Freq Voltage		X		X		X
Low Freq Voltage – Temp Sensor		X	X	X	X	X
IF Oscillator Frequency						
RF Out Frequency				X	X	
Isolation (Tx/Rx, RF/IF/LO – up to 23 dBm)						
Pout vs. Frequency				X		
Pout v. Pin (includes P _{1dB} compression)		X				X
Gain vs. Frequency at some Pin						
Gain Flatness		X				
Pout Flatness						
Efficiency vs. Frequency						
RF Envelope Timing Parameters (t _r , t _f , t _{on} , pulse width)						
General Timing Measurements					X	
200 nSec turn off (150 dB dynamic range)						
AM to PM Evaluation						
IP3 Two Tone 3rd Order Intercept		X				X
Stability Into All Phase Load During TXP Modulation		X				
Harmonic Content and Spurs						
S11/S22/S33 Return Loss		X	X			
High Power Return Loss						
S21 Gain/Rejection/Ripple		X	X			
Group Delay			X			
Time Domain Impulse Response						
0 Time Fed Thru			X			
3 rd and 5 th Order Time Products			X			
Noise Figure		X				X
Phase Noise						
Frequency Tuning Speed						
Frequency Pulling Into All Phase 2:1 VSWR						
Spurious Spectral Content						
Insertion Phase vs. Frequency						
Phase and Amplitude Imbalance Between all Phase States						
Conversion Loss (Maybe S21)						X