



**TYPICAL CHARACTERISTICS
ON
LM-20M18G-100W-15DBM-ROHS**

THE MODEL PMI LM-20M18G-100W-15DBM-ROHS IS AN RF LIMITER THAT OPERATES IN THE RANGE OF FREQUENCIES FROM 20MHZ TO 18GHZ. THIS LIMITER CAN HANDLE UP TO 100W CW MORE THAN 20MHZ TO 18GHZ, FOR ALL TEMPERATURES (-55 ° TO +85 ° C) THE ENERGY INPUT PROVIDES LEAKS OF + 15DBM MAX. THIS MODEL HAS A LOW INSERTION LOSS OF 2.60 DB AND A MAXIMUM 100NSEC RECOVERY TIME.



May 11, 2023

Designed By: Dave Durbin

**Tested and Reported By:
Alfredo Lopez**



TYPICAL CHARACTERISTICS ON LM-20M18G-100W-15DBM-ROHS

Outline Drawing

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	03/14/23	

DESCRIPTION

THE MODEL PMI LM-20M18G-100W-15DBM-ROHS IS AN RF LIMITER THAT OPERATES IN THE RANGE OF FREQUENCIES FROM 20MHZ TO 18GHZ. THIS LIMITER CAN HANDLE UP TO 100W CW MORE THAN 20MHZ TO 18GHZ, FOR ALL TEMPERATURES (-55 ° TO +85 ° C) THE ENERGY INPUT PROVIDES LEAKS OF + 15DBM MAX. THIS MODEL HAS A LOW INSERTION LOSS OF 2,60 dB AND A MAXIMUM 100NSEC RECOVERY TIME.

SPECIFICATIONS

- FREQUENCY RANGE: 20 MHz TO 18.0 GHz
- RF POWER HANDLING: 100W CW MAX. @ -55 °C TO +85°C
1KW PEAK MIN. +85°C (1µs Pulse Width, 0,1% Duty Cycle)
100W (1µs, 1% DUTY CYCLE, 10KHZ)
100W (10 µs, 0,1% DUTY CYCLE, 100HZ)
100W (1 µs, 0,1% DUTY CYCLE, 1KHZ)
100W (40 µs, 10% DUTY CYCLE, 2,5KHZ)
- INSERTION LOSS: 2,60 dB MAX. @ -10 dBm INPUT POWER.
- RECOVERY TIME: 100 ns MAX. @ 100 W PEAK POWER
- LEAKAGE POWER: +15 dBm MAX. AT 100W CW
- VSWR: 2,0:1 MAX. @ -10 dBm INPUT POWER
- LIMITING THRESHOLD: +5 dBm MINIMUM (P1dB)
- CONNECTORS: INPUT: SMA MALE
OUTPUT: SMA FEMALE
- WEIGHT: 20g [0,705 oz] MAX.
- SIZE: (L) 22,86mm x (W) 9,65mm x (H) 9,65mm MAX.
[(L) 0,90" x (W) 0,38" x (H) 0,38" MAX. EXCLUDING CONNECTORS
- FINISH: PAINTED BLUE

ENVIRONMENTAL RATINGS
IAW MIL-E-5400, CLASS 2 EQUIPMENT

- TEMPERATURE: -55 °C TO +85 °C (OPERATING)
-62 °C TO +95 °C (STORAGE)
- VIBRATION: 0,1 inchpp OR ± 10G, 5 ~ 500 Hz (FIGURE 2, SHEET 1 OF 3, CURVE IV)
- SHOCK: 15G, 11±1 ms
- HUMIDITY: 100%
- ALTITUDE: 70,000 FT

7309-A GROVE ROAD
FREDERICK, MARYLAND 21704 USA
TEL: (301)-662-5019, FAX: (301)-662-1731
WEB: www.pmi-rf.com, EMAIL: sales@pmi-rf.com
ISO 9001 CERTIFIED

Quantic PMI
PLANAR MONOLITHICS

APPROVALS		DATE	TITLE	
DRAWN	<i>MJD</i>	03/14/23	OUTLINE LM-20M18G-100W-15DBM-ROHS	
DESIGNED			SER. FROM NO.	DWG NO.
ISSUED			A 05XQ0	27046140
			SCALE: N/S	SHEET 1 OF 1

NOTE: SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

PMI CONFIDENTIAL AND PROPRIETARY



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Technical Specifications

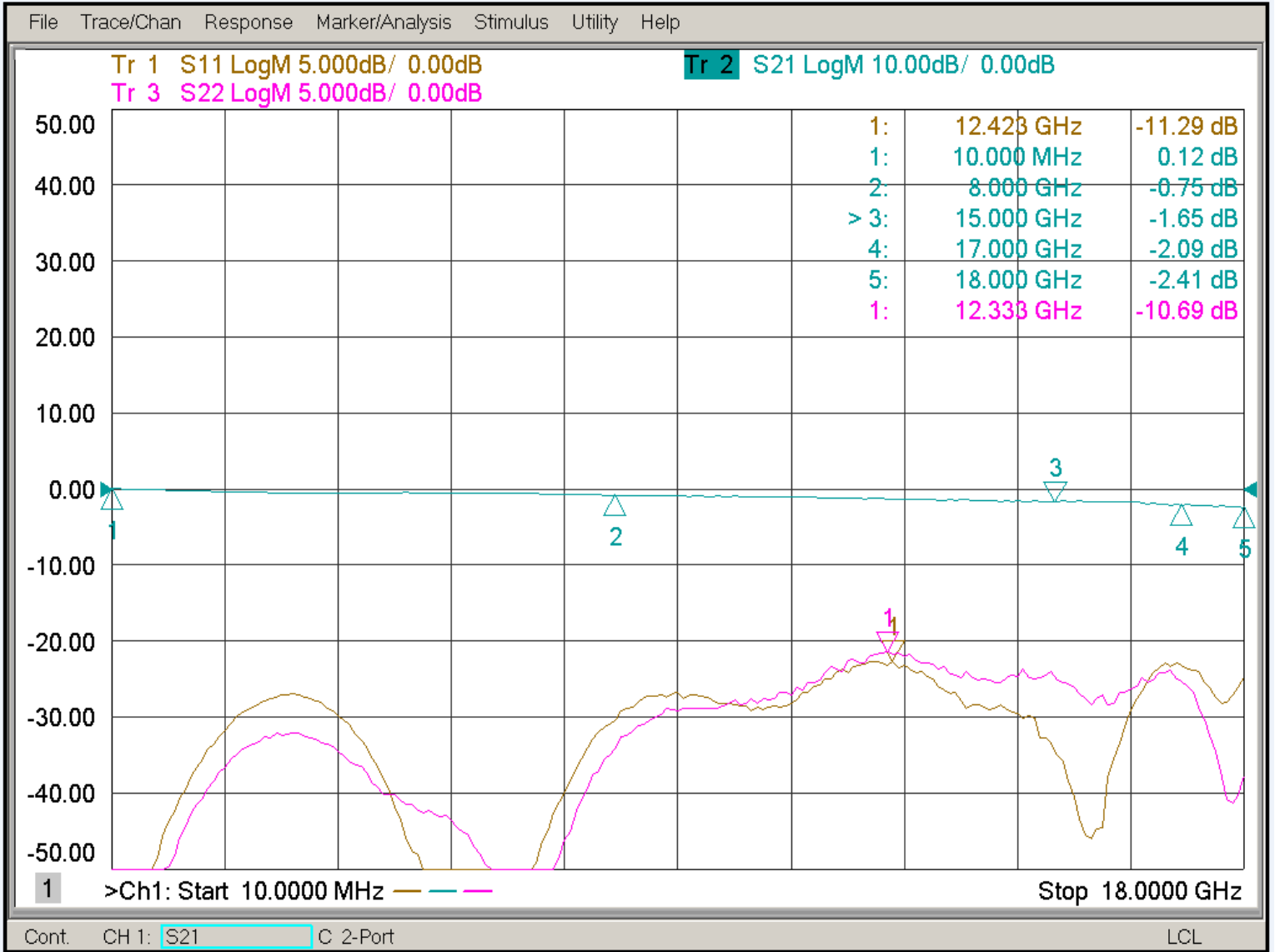
TEST. ITEM NO	PARAMETERS	SPECIFIED VALUE	TEST RESULTS	QA QC
1	Frequency Range:	20MHz to 18GHz	20MHz to 18GHz (See Plot)	
2	RF Power Handling	100W CW Max. (@-55 TO+85°C)	Pass (See Graphs)	
		1KW Peak Min. +85°C (1USEC, 0.1% DC)	Pass By Design	
		100W (1USEC, 1% DC, 10KHz) 100W (10USEC, 0.1% DC, 100Hz) 100W (1USEC, 0.1% DC, 1KHz) 100W (40USEC, 10% DC, 2.5KHz) (NOTE 1)	Pass (See Graphs)	
3	Insertion Loss:	2.60 dB MAX @ -10 dBm INPUT POWER	2.41 dB (See Plot)	
4	Recovery Time:	100ns Max. @ 100 W Peak Power	91.11ns (See Plots)	
5	Leakage Power	+15 dBm Max	+14.94 dBm (See Graphs)	
6	Input /Output VSWR:	2.0:1 MAXIMUM (AT -10dBm INPUT)	Input 1.75:1 Output 1.83:1 (See Plot)	
7	Limiting Threshold: (P1dB)	+5 dBm Minimum	Pass (See Graphs)	

1. NOTE: NO DC BLOCKS ARE INSIDE THIS LIMITER.



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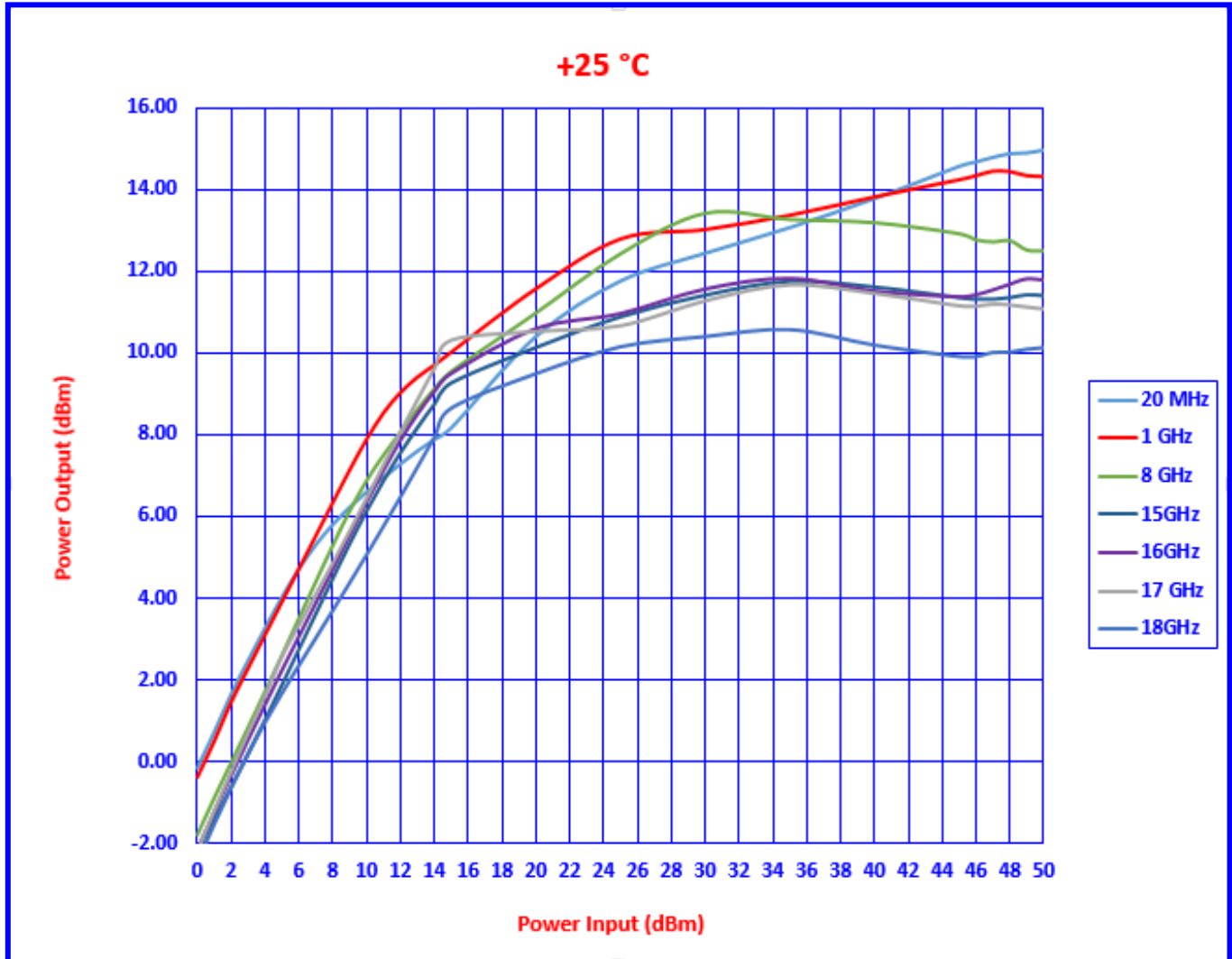
(J1-J2) Insertion Loss and Return Loss





**TYPICAL CHARACTERISTICS
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Graph High Power Test (CW)





**TYPICAL CHARACTERISTICS
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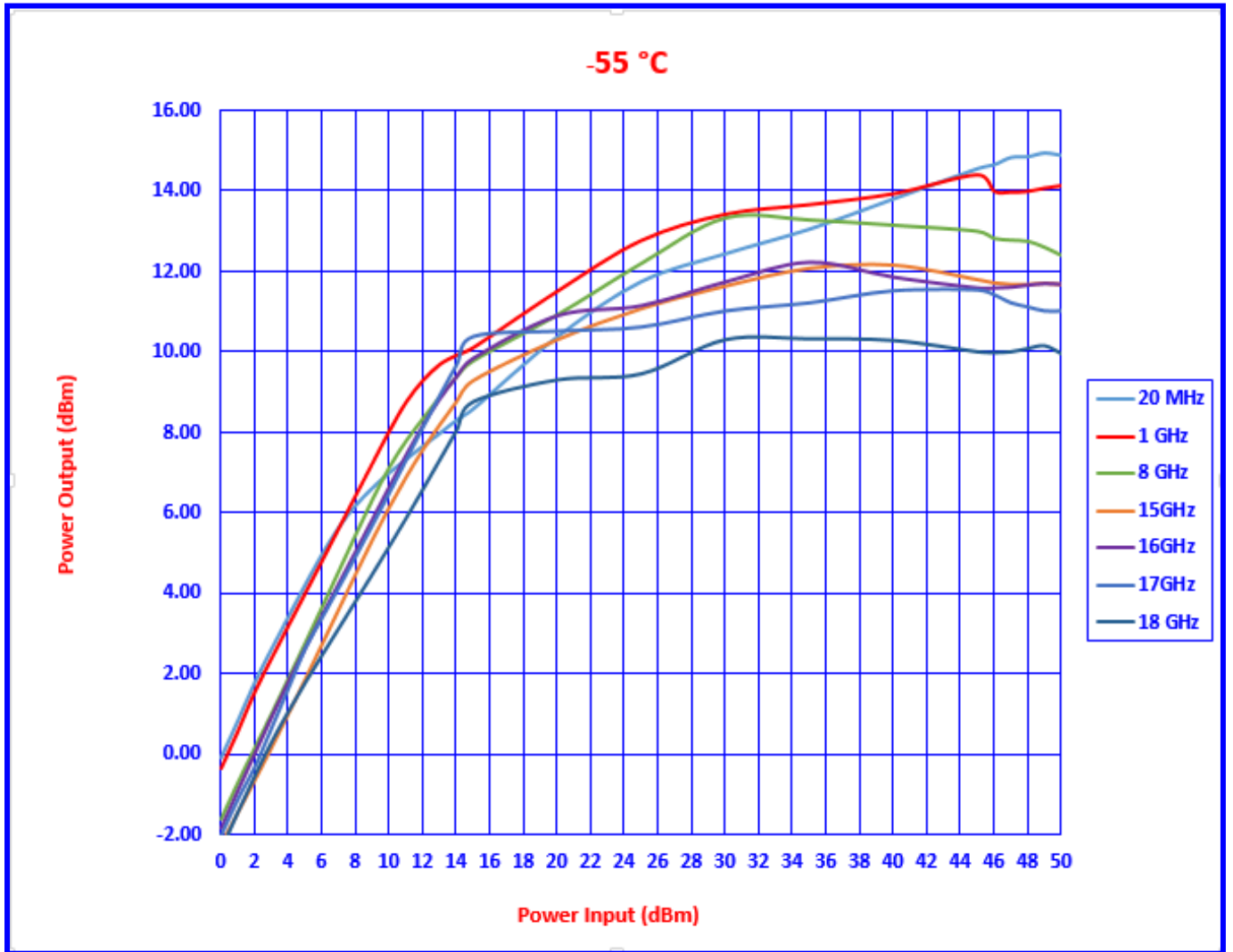
Data High Power Test (CW)

+25 °C																				
20 MHz			1GHz			8GHz			15 GHz			16 GHz			17 GHz			18 GHz		
POWER INPUT (dBm)	POWER OUTPUT (dBm)	LOSS	POWER INPUT (dBm)	POWER OUTPUT (dBm)	LOSS	POWER INPUT (dBm)	POWER OUTPUT (dBm)	LOSS	POWER INPUT (dBm)	POWER OUTPUT (dBm)	LOSS	POWER INPUT (dBm)	POWER OUTPUT (dBm)	LOSS	POWER INPUT (dBm)	POWER OUTPUT (dBm)	LOSS	POWER INPUT (dBm)	POWER OUTPUT (dBm)	LOSS
0	-0.17	0.17	0	-0.41	0.41	0	-1.82	1.82	0	-2.21	2.21	0	-2.14	2.14	0	-2.20	2.20	0	-2.47	2.47
1	0.71	0.29	1	0.48	0.52	1	-0.91	1.91	1	-1.42	2.42	1	-1.22	2.22	1	-1.20	2.20	1	-1.53	2.53
2	1.64	0.36	2	1.43	0.57	2	-0.05	2.05	2	-0.62	2.62	2	-0.33	2.33	2	-0.25	2.25	2	-0.64	2.64
3	2.47	0.53	3	2.27	0.73	3	0.82	2.18	3	0.18	2.82	3	0.55	2.45	3	0.70	2.30	3	0.20	2.80
4	3.26	0.74	4	3.08	0.92	4	1.70	2.31	4	1.02	2.98	4	1.41	2.59	4	1.60	2.40	4	0.96	3.04
5	4.02	0.98	5	3.89	1.11	5	2.59	2.41	5	1.87	3.13	5	2.25	2.75	5	2.56	2.44	5	1.68	3.32
6	4.71	1.29	6	4.70	1.30	6	3.48	2.52	6	2.74	3.26	6	3.08	2.92	6	3.32	2.68	6	2.36	3.64
7	5.30	1.70	7	5.51	1.49	7	4.38	2.62	7	3.61	3.39	7	3.90	3.10	7	4.08	2.92	7	3.03	3.97
8	5.80	2.20	8	6.32	1.68	8	5.27	2.73	8	4.48	3.52	8	4.72	3.28	8	4.85	3.15	8	3.70	4.30
9	6.22	2.78	9	7.12	1.88	9	6.12	2.88	9	5.33	3.67	9	5.55	3.45	9	5.63	3.37	9	4.38	4.62
10	6.60	3.40	10	7.87	2.13	10	6.86	3.14	10	6.13	3.87	10	6.37	3.63	10	6.43	3.57	10	5.07	4.93
11	6.95	4.05	11	8.51	2.49	11	7.48	3.52	11	6.87	4.13	11	7.15	3.85	11	7.24	3.76	11	5.77	5.23
12	7.29	4.71	12	9.01	2.99	12	8.04	3.96	12	7.56	4.44	12	7.88	4.12	12	8.05	3.95	12	6.49	5.52
13	7.60	5.40	13	9.39	3.61	13	8.60	4.40	13	8.17	4.83	13	8.52	4.48	13	8.83	4.17	13	7.22	5.78
14	7.88	6.12	14	9.68	4.32	14	9.10	4.90	14	8.74	5.26	14	9.07	4.93	14	9.59	4.41	14	7.94	6.06
15	8.17	6.83	15	10.00	5.00	15	9.53	5.47	15	9.26	5.74	15	9.52	5.48	15	10.29	4.71	15	8.66	6.34
20	10.41	9.59	20	11.55	8.45	20	10.96	9.04	20	10.13	9.87	20	10.61	9.39	20	10.50	9.50	20	9.50	10.50
25	11.77	13.23	25	12.77	12.23	25	12.41	12.59	25	10.88	14.12	25	10.98	14.02	25	10.64	14.36	25	10.16	14.84
30	12.45	17.55	30	13.00	17.00	30	13.40	16.60	30	11.41	18.59	30	11.58	18.42	30	11.25	18.75	30	10.41	19.59
35	13.08	21.92	35	13.35	21.65	35	13.25	21.75	35	11.75	23.25	35	11.84	23.16	35	11.64	23.36	35	10.58	24.42
40	13.79	26.21	40	13.80	26.20	40	13.17	26.83	40	11.61	28.39	40	11.53	28.47	40	11.43	28.57	40	10.20	29.80
45	14.58	30.42	45	14.22	30.78	45	12.90	32.10	45	11.35	33.65	45	11.39	33.61	45	11.13	33.87	45	9.92	35.08
46	14.69	31.31	46	14.32	31.68	46	12.75	33.25	46	11.31	34.69	46	11.44	34.56	46	11.12	34.88	46	9.92	36.08
47	14.8	32.20	47	14.43	32.57	47	12.7	34.30	47	11.31	35.69	47	11.56	35.44	47	11.17	35.83	47	10.02	36.98
48	14.89	33.11	48	14.42	33.58	48	12.73	35.27	48	11.35	36.65	48	11.70	36.30	48	11.15	36.85	48	10.03	37.97
49	14.91	34.09	49	14.32	34.68	49	12.5	36.50	49	11.42	37.58	49	11.83	37.17	49	11.10	37.90	49	10.10	38.90
50	14.98	35.02	50	14.30	35.70	50	12.48	38	50	11.40	38.60	50	11.80	38.20	50	11.05	38.95	50	10.14	39.86



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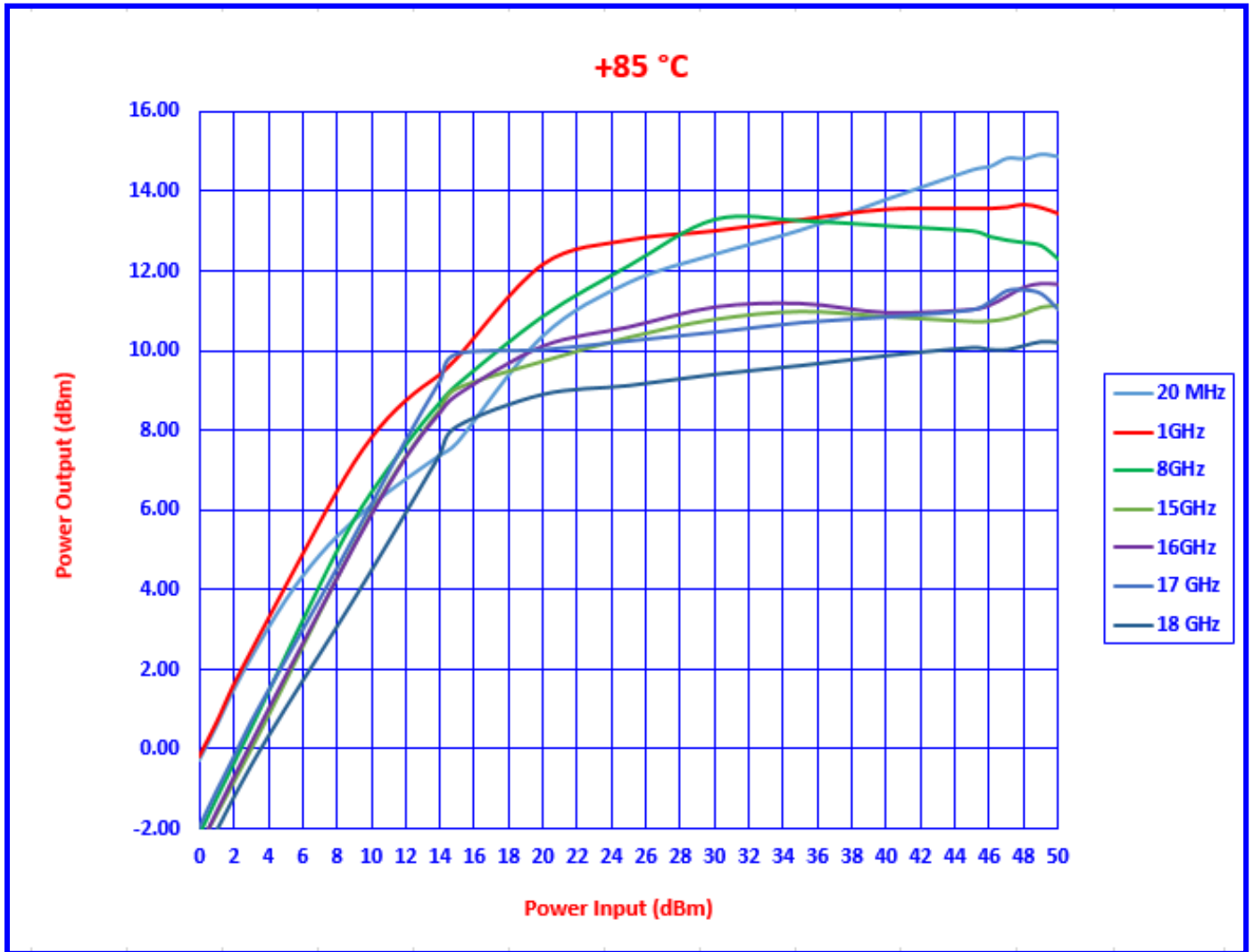
Graph High Power Test (CW)





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Graph High Power Test (CW)





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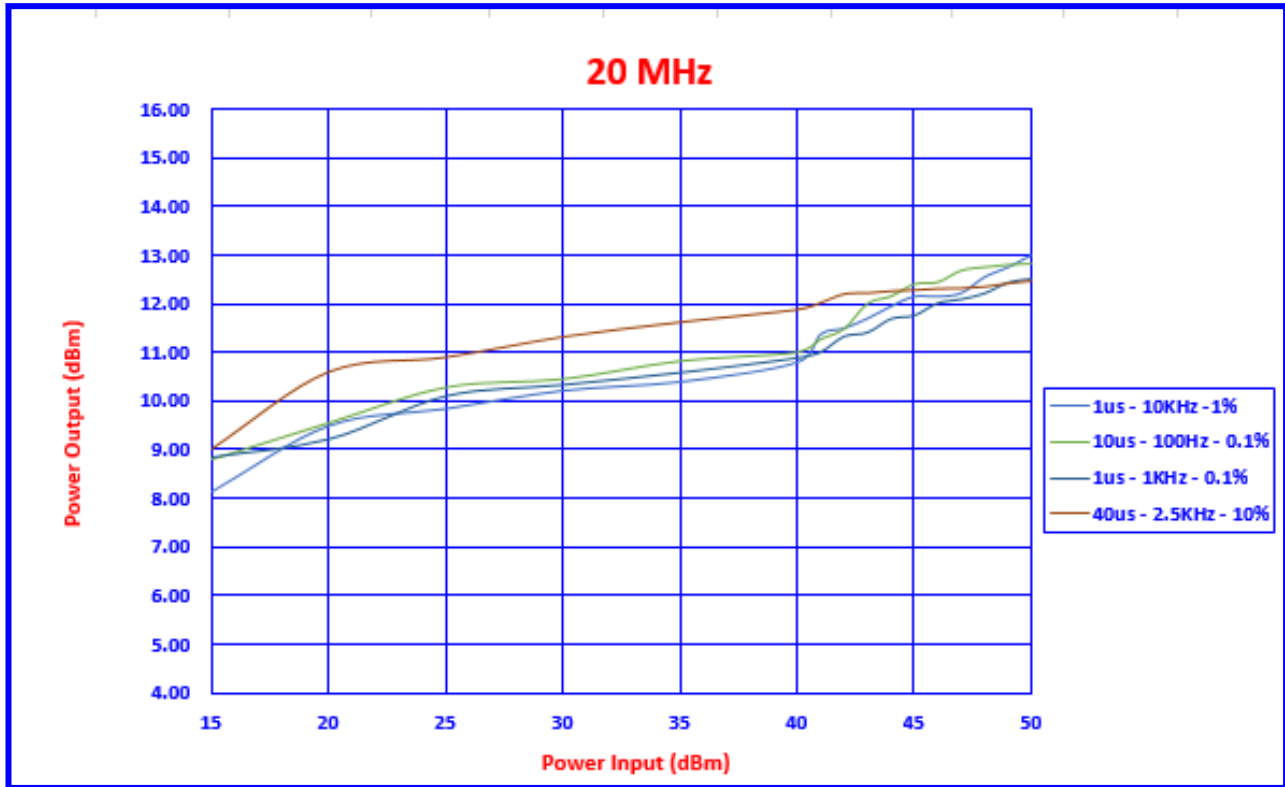
Data High Power Test (CW)

+85 °C																				
20 MHz			1GHz			8GHz			15 GHz			16 GHz			17 GHz			18 GHz		
POWER INPUT (dBm)	POWER OUTPUT (dBm)	LOSS	POWER INPUT (dBm)	POWER OUTPUT (dBm)	LOSS	POWER INPUT (dBm)	POWER OUTPUT (dBm)	LOSS	POWER INPUT (dBm)	POWER OUTPUT (dBm)	LOSS	POWER INPUT (dBm)	POWER OUTPUT (dBm)	LOSS	POWER INPUT (dBm)	POWER OUTPUT (dBm)	LOSS	POWER INPUT (dBm)	POWER OUTPUT (dBm)	LOSS
0	-0.30	0.30	0	-0.19	0.19	0	-2.16	2.16	0	-2.45	2.45	0	-2.49	2.49	0	-1.97	1.97	0	-2.94	2.94
1	0.54	0.46	1	0.65	0.35	1	-1.25	2.25	1	-1.67	2.67	1	-1.60	2.60	1	-1.07	2.07	1	-2.06	3.06
2	1.45	0.55	2	1.60	0.40	2	-0.38	2.38	2	-0.86	2.86	2	-0.73	2.73	2	-0.22	2.22	2	-1.22	3.22
3	2.25	0.75	3	2.42	0.58	3	0.50	2.50	3	-0.04	3.04	3	0.12	2.88	3	0.65	2.35	3	-0.43	3.43
4	3.00	1.00	4	3.24	0.76	4	1.39	2.61	4	0.80	3.20	4	0.96	3.04	4	1.44	2.56	4	0.30	3.70
5	3.69	1.31	5	4.05	0.95	5	2.29	2.71	5	1.66	3.34	5	1.79	3.21	5	2.20	2.80	5	1.00	4.00
6	4.30	1.70	6	4.86	1.14	6	3.19	2.81	6	2.54	3.46	6	2.62	3.38	6	2.96	3.04	6	1.69	4.31
7	4.84	2.16	7	5.66	1.34	7	4.08	2.92	7	3.41	3.59	7	3.44	3.56	7	3.73	3.27	7	2.37	4.63
8	5.30	2.70	8	6.44	1.56	8	4.95	3.05	8	4.27	3.73	8	4.25	3.75	8	4.51	3.49	8	3.05	4.95
9	5.72	3.28	9	7.17	1.83	9	5.73	3.27	9	5.12	3.88	9	5.06	3.94	9	5.30	3.70	9	3.75	5.25
10	6.09	3.91	10	7.79	2.21	10	6.42	3.58	10	5.91	4.09	10	5.85	4.15	10	6.11	3.89	10	4.45	5.55
11	6.43	4.57	11	8.30	2.70	11	7.03	3.97	11	6.65	4.35	11	6.60	4.40	11	6.91	4.09	11	5.17	5.83
12	6.75	5.25	12	8.73	3.27	12	7.62	4.38	12	7.33	4.67	12	7.29	4.71	12	7.71	4.29	12	5.90	6.10
13	7.05	5.95	13	9.08	3.92	13	8.17	4.83	13	7.95	5.05	13	7.89	5.11	13	8.48	4.52	13	6.63	6.37
14	7.35	6.65	14	9.39	4.61	14	8.68	5.32	14	8.52	5.48	14	8.42	5.58	14	9.21	4.79	14	7.37	6.63
15	7.66	7.34	15	9.80	5.20	15	9.13	5.87	15	9.06	5.94	15	8.87	6.13	15	9.90	5.10	15	8.08	6.92
20	10.35	9.65	20	12.15	7.85	20	10.85	9.15	20	9.74	10.26	20	10.10	9.90	20	10.00	10.00	20	8.88	11.12
25	11.69	13.31	25	12.76	12.24	25	12.12	12.88	25	10.34	14.66	25	10.58	14.42	25	10.22	14.78	25	9.10	15.90
30	12.40	17.60	30	12.99	17.01	30	13.28	16.72	30	10.79	19.21	30	11.08	18.92	30	10.44	19.56	30	9.38	20.62
35	13.01	21.99	35	13.27	21.73	35	13.25	21.75	35	10.99	24.01	35	11.17	23.83	35	10.68	24.32	35	9.60	25.40
40	13.78	26.22	40	13.53	26.47	40	13.12	26.88	40	10.86	29.14	40	10.94	29.06	40	10.82	29.18	40	9.85	30.15
45	14.52	30.48	45	13.55	31.45	45	12.99	32.01	45	10.74	34.26	45	11.02	33.98	45	11.00	34.00	45	10.05	34.95
46	14.60	31.40	46	13.55	32.45	46	12.85	33.15	46	10.75	35.25	46	11.13	34.87	46	11.20	34.80	46	10.00	36.00
47	14.81	32.19	47	13.58	33.42	47	12.76	34.24	47	10.81	36.19	47	11.35	35.65	47	11.48	35.52	47	10.00	37.00
48	14.8	33.20	48	13.65	34.35	48	12.7	35.30	48	10.94	37.06	48	11.58	36.42	48	11.50	36.50	48	10.10	37.90
49	14.91	PASS	49	13.57	35.43	49	12.62	36.38	49	11.10	37.90	49	11.67	37.33	49	11.40	37.60	49	10.20	38.80
50	14.85	35.15	50	13.42	36.58	50	12.28	37.72	50	11.14	38.86	50	11.65	38.35	50	11.00	39.00	50	10.18	39.82



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Graph Peak Power Test (Pulsed)

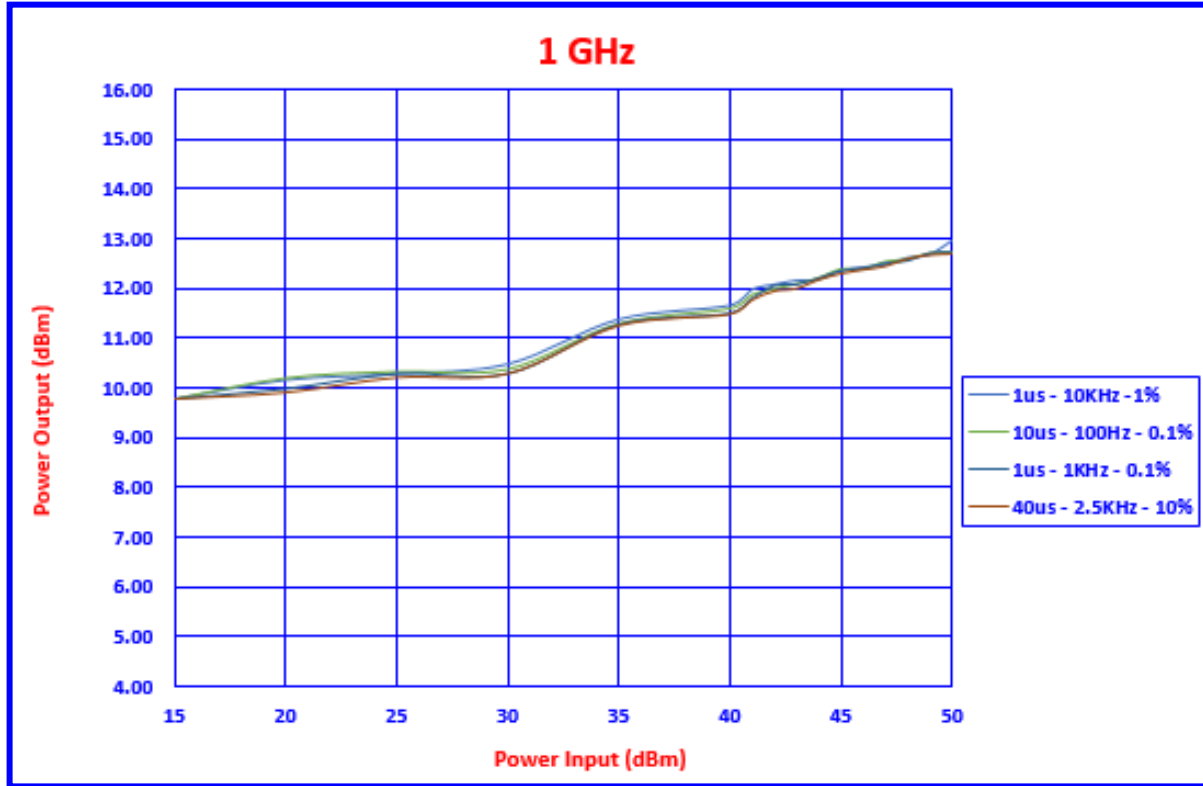


20 MHz							
10us - 100Hz - DC 0.1%		10us - 100Hz - DC 0.1%		1us - 1KHz - DC 0.1%		40us - 2.5KHz - DC 10%	
POWER INPUT (dBm)	POWER OUTPUT (dBm)	POWER INPUT (dBm)	POWER OUTPUT (dBm)	POWER INPUT (dBm)	POWER OUTPUT (dBm)	POWER INPUT (dBm)	POWER OUTPUT (dBm)
15	8.15	15	8.80	15	8.85	15	9.00
20	9.50	20	9.55	20	9.22	20	10.58
25	9.85	25	10.28	25	10.10	25	10.88
30	10.22	30	10.45	30	10.33	30	11.30
35	10.40	35	10.82	35	10.58	35	11.60
40	10.80	40	11.00	40	10.88	40	11.86
41	11.38	41	11.27	41	11.00	41	12.00
42	11.50	42	11.48	42	11.32	42	12.18
43	11.70	43	12.00	43	11.40	43	12.20
44	11.95	44	12.15	44	11.68	44	12.24
45	12.15	45	12.40	45	11.75	45	12.26
46	12.15	46	12.44	46	12.00	46	12.29
47	12.22	47	12.68	47	12.08	47	12.30
48	12.55	48	12.75	48	12.20	48	12.33
49	12.75	49	12.80	49	12.42	49	12.40
50	13.00	50	12.82	50	12.50	50	12.45



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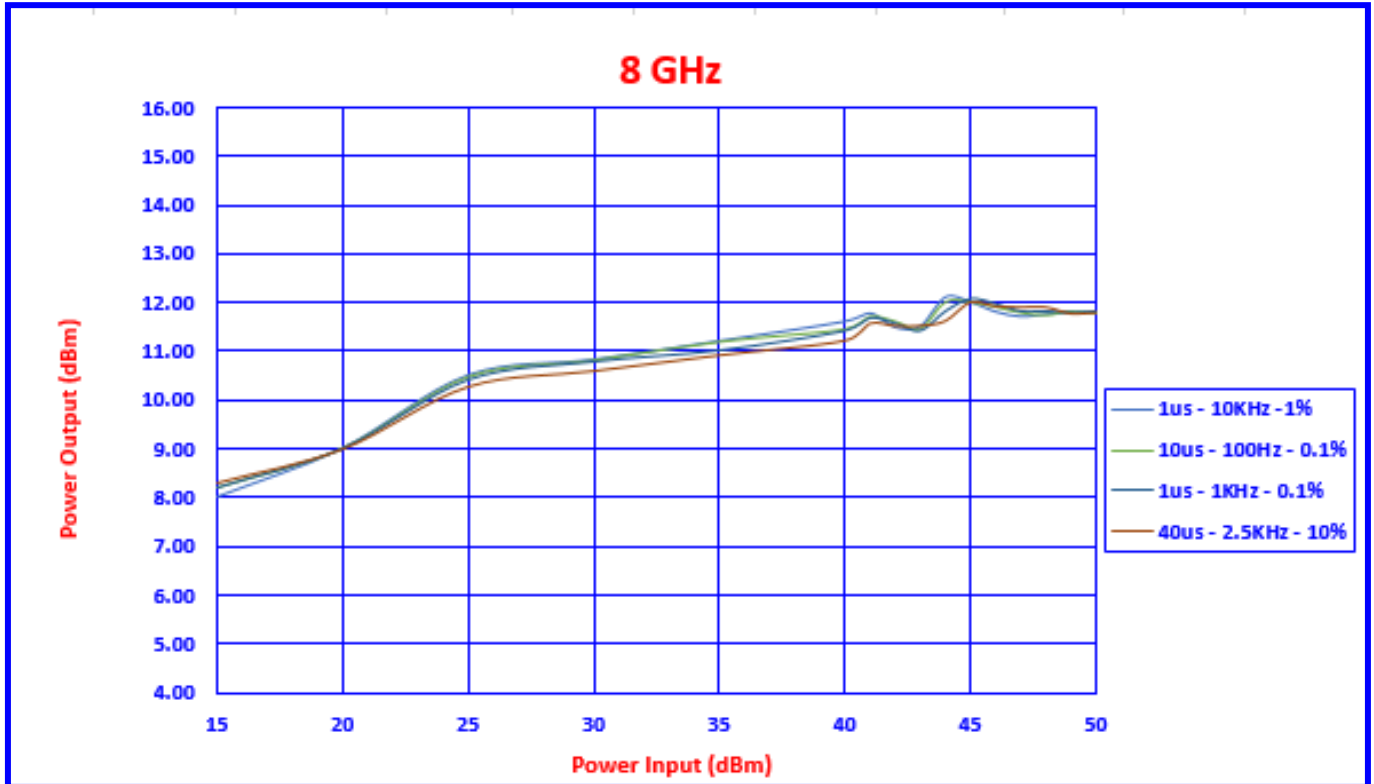


1 GHz							
10us - 100Hz - DC 0.1%		10us - 100Hz - DC 0.1%		1us - 1KHz - DC 0.1%		40us - 2.5KHz - DC 10%	
POWER INPUT (dBm)	POWER OUTPUT (dBm)	POWER INPUT (dBm)	POWER OUTPUT (dBm)	POWER INPUT (dBm)	POWER OUTPUT (dBm)	POWER INPUT (dBm)	POWER OUTPUT (dBm)
15	9.80	15	9.78	15	9.80	15	9.77
20	10.18	20	10.20	20	10.00	20	9.90
25	10.30	25	10.33	25	10.30	25	10.20
30	10.50	30	10.38	30	10.30	30	10.28
35	11.40	35	11.30	35	11.28	35	11.25
40	11.68	40	11.60	40	11.50	40	11.48
41	12.00	41	11.88	41	11.80	41	11.77
42	12.10	42	12.00	42	12.05	42	11.95
43	12.18	43	12.10	43	12.08	43	12.00
44	12.20	44	12.22	44	12.20	44	12.18
45	12.38	45	12.40	45	12.35	45	12.30
46	12.45	46	12.40	46	12.40	46	12.38
47	12.50	47	12.55	47	12.50	47	12.45
48	12.64	48	12.60	48	12.55	48	12.60
49	12.70	49	12.72	49	12.70	49	12.68
50	12.98	50	12.75	50	12.72	50	12.70



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Graph Peak Power Test (Pulsed)

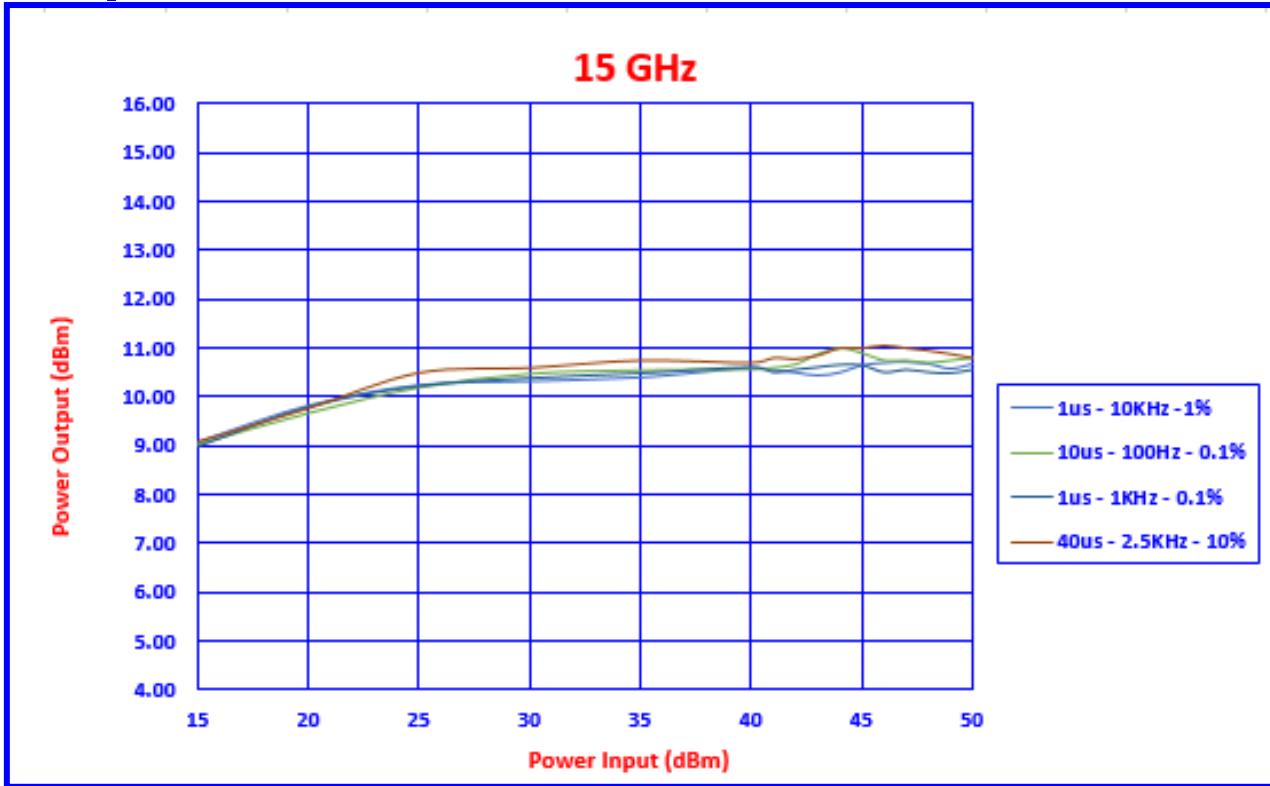


8 GHz							
10us - 100Hz - DC 0.1%		10us - 100Hz - DC 0.1%		1us - 1KHz - DC 0.1%		40us - 2.5KHz - DC 10%	
POWER INPUT (dBm)	POWER OUTPUT (dBm)	POWER INPUT (dBm)	POWER OUTPUT (dBm)	POWER INPUT (dBm)	POWER OUTPUT (dBm)	POWER INPUT (dBm)	POWER OUTPUT (dBm)
15	8.00	15	8.18	15	8.20	15	8.30
20	9.00	20	8.99	20	9.00	20	8.99
25	10.50	25	10.46	25	10.40	25	10.26
30	10.82	30	10.80	30	10.77	30	10.58
35	11.20	35	11.18	35	11.00	35	10.90
40	11.60	40	11.44	40	11.40	40	11.20
41	11.77	41	11.70	41	11.66	41	11.55
42	11.48	42	11.60	42	11.55	42	11.50
43	11.50	43	11.45	43	11.40	43	11.50
44	12.10	44	12.00	44	11.80	44	11.60
45	12.00	45	12.00	45	12.05	45	11.98
46	11.80	46	11.90	46	11.95	46	11.90
47	11.7	47	11.78	47	11.8	47	11.88
48	11.75	48	11.73	48	11.8	48	11.88
49	11.8	49	11.81	49	11.77	49	11.75
50	11.70	50	11.77	50	11.80	50	11.77



**TYPICAL CHARACTERISTICS
ON
LM-20M18G-100W-15DBM-ROHS**

Graph Peak Power Test (Pulsed)



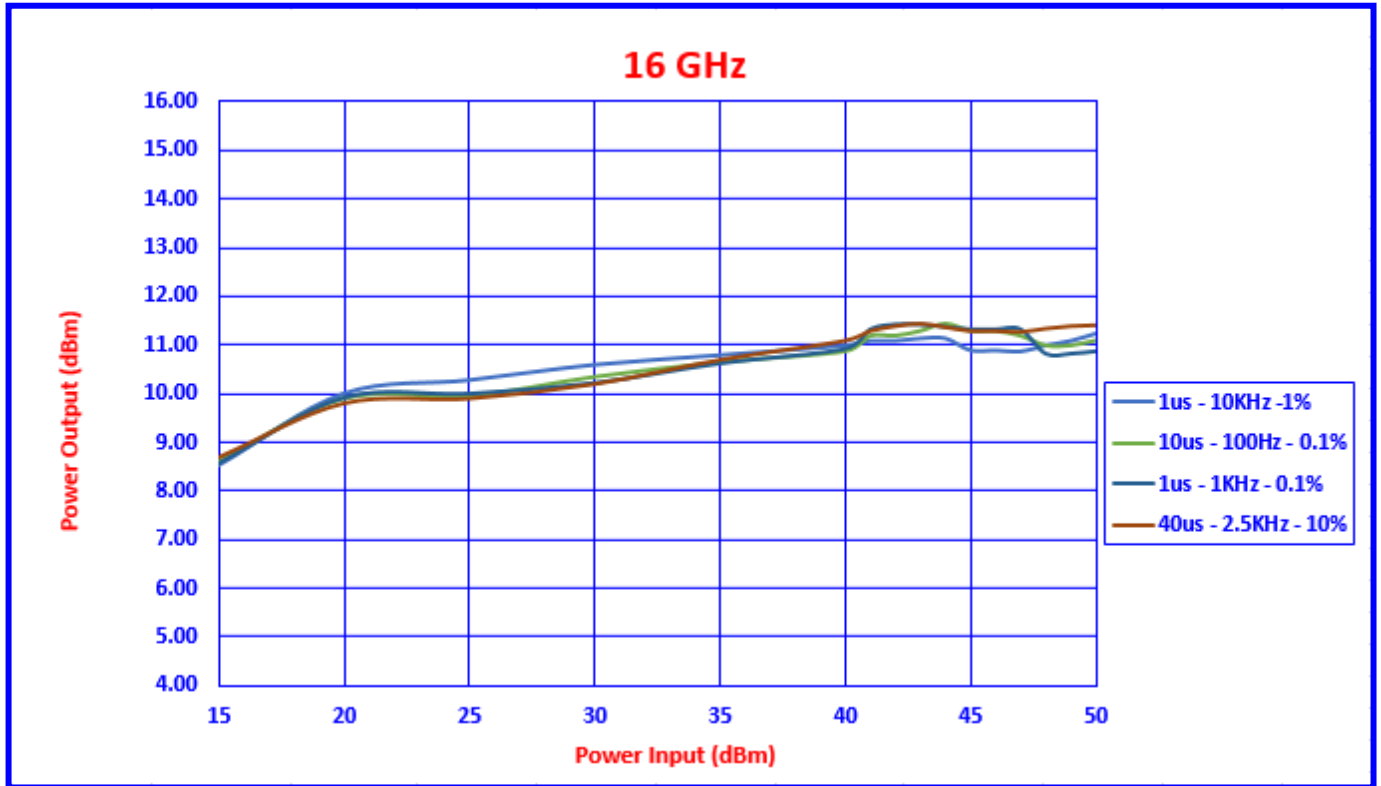
15 GHz							
10us - 100Hz - DC 0.1%		10us - 100Hz - DC 0.1%		1us - 1KHz - DC 0.1%		40us - 2.5KHz - DC 10%	
POWER INPUT (dBm)	POWER OUTPUT (dBm)	POWER INPUT (dBm)	POWER OUTPUT (dBm)	POWER INPUT (dBm)	POWER OUTPUT (dBm)	POWER INPUT (dBm)	POWER OUTPUT (dBm)
15	9.07	15	9.05	15	9.00	15	9.10
20	9.82	20	9.68	20	9.80	20	9.78
25	10.24	25	10.20	25	10.22	25	10.50
30	10.32	30	10.48	30	10.38	30	10.60
35	10.40	35	10.55	35	10.48	35	10.75
40	10.60	40	10.57	40	10.60	40	10.70
41	10.55	41	10.60	41	10.50	41	10.80
42	10.50	42	10.67	42	10.55	42	10.78
43	10.44	43	10.88	43	10.60	43	10.85
44	10.50	44	11.00	44	10.65	44	11.00
45	10.65	45	10.90	45	10.64	45	11.00
46	10.70	46	10.75	46	10.50	46	11.05
47	10.72	47	10.75	47	10.55	47	11.00
48	10.68	48	10.70	48	10.50	48	10.95
49	10.58	49	10.75	49	10.48	49	10.88
50	10.68	50	10.8	50	10.55	50	10.80

80W
100W



**TYPICAL CHARACTERISTICS
ON
LM-20M18G-100W-15DBM-ROHS**

Graph Peak Power Test (Pulsed)



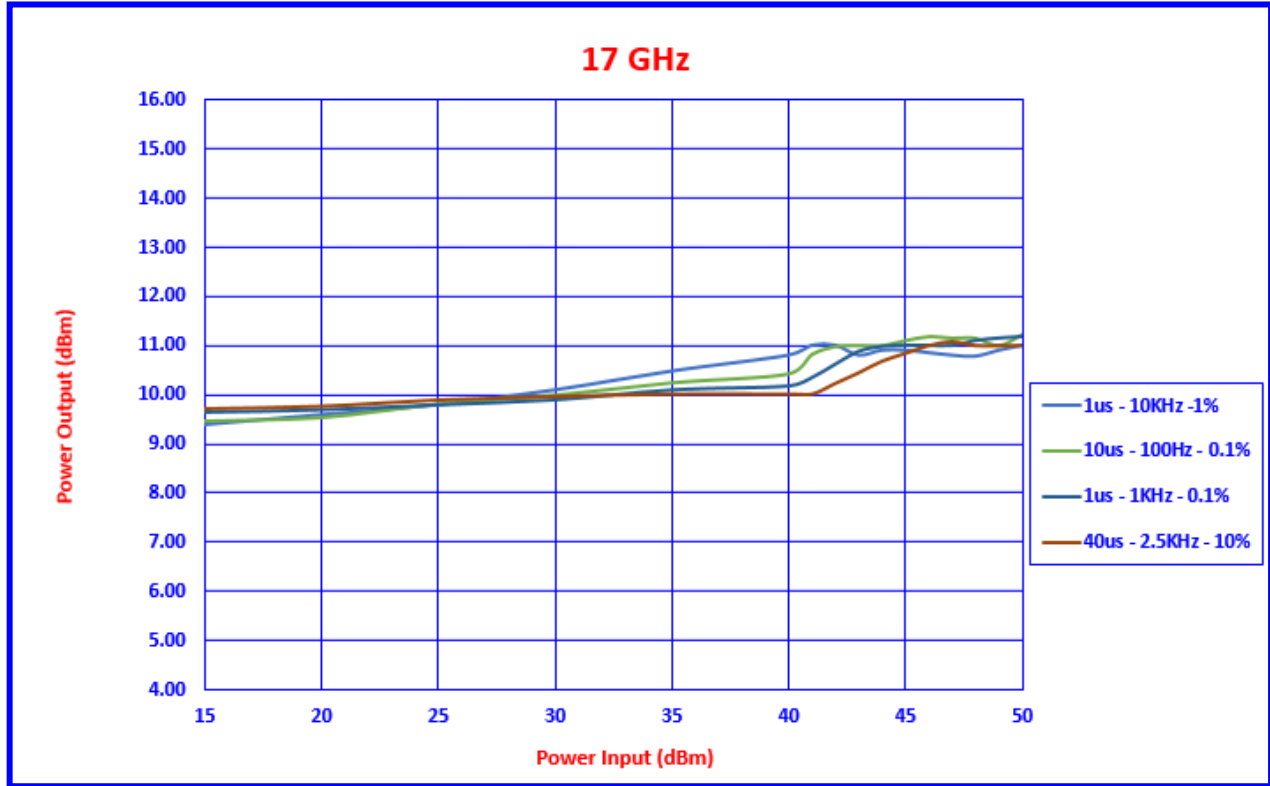
16 GHz

10us - 100Hz - DC 0.1%		10us - 100Hz - DC 0.1%		1us - 1KHz - DC 0.1%		40us - 2.5KHz - DC 10%		
POWER INPUT (dBm)	POWER OUTPUT (dBm)	POWER INPUT (dBm)	POWER OUTPUT (dBm)	POWER INPUT (dBm)	POWER OUTPUT (dBm)	POWER INPUT (dBm)	POWER OUTPUT (dBm)	
15	8.50	15	8.60	15	8.55	15	8.68	
20	10.00	20	9.90	20	9.90	20	9.80	
25	10.28	25	9.95	25	9.98	25	9.90	
30	10.60	30	10.35	30	10.20	30	10.20	
35	10.80	35	10.65	35	10.60	35	10.70	
40	11.00	40	10.88	40	10.90	40	11.10	
41	11.10	41	11.20	41	11.30	41	11.30	
42	11.10	42	11.20	42	11.40	42	11.40	
43	11.15	43	11.30	43	11.40	43	11.45	
44	11.15	44	11.45	44	11.35	44	11.38	
45	10.90	45	11.30	45	11.30	45	11.30	
46	10.90	46	11.30	46	11.30	46	11.30	
47	10.88	47	11.20	47	11.30	47	11.28	
48	11.00	48	11.00	48	10.80	48	11.35	
49	11.10	49	11.00	49	10.80	49	11.40	80W
50	11.25	50	11.1	50	10.85	50	11.42	100W



**TYPICAL CHARACTERISTICS
ON
LM-20M18G-100W-15DBM-ROHS**

Graph Peak Power Test (Pulsed)



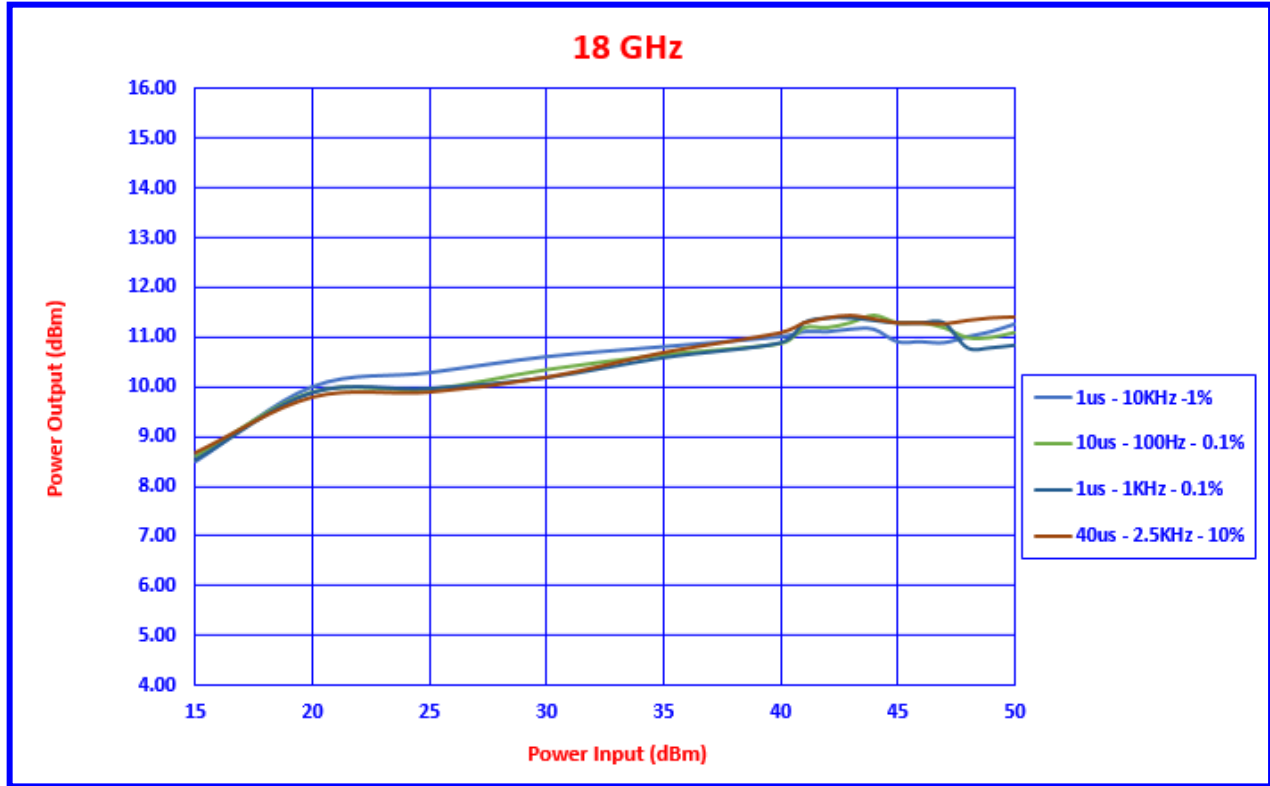
17 GHz							
10us - 100Hz - DC 0.1%		10us - 100Hz - DC 0.1%		1us - 1KHz - DC 0.1%		40us - 2.5KHz - DC 10%	
POWER INPUT (dBm)	POWER OUTPUT (dBm)	POWER INPUT (dBm)	POWER OUTPUT (dBm)	POWER INPUT (dBm)	POWER OUTPUT (dBm)	POWER INPUT (dBm)	POWER OUTPUT (dBm)
15	9.40	15	9.48	15	9.65	15	9.70
20	9.60	20	9.55	20	9.70	20	9.75
25	9.80	25	9.82	25	9.80	25	9.88
30	10.10	30	10.00	30	9.90	30	9.95
35	10.48	35	10.25	35	10.10	35	10.00
40	10.80	40	10.43	40	10.18	40	10.00
41	11.00	41	10.82	41	10.35	41	10.00
42	11.00	42	10.98	42	10.62	42	10.22
43	10.80	43	11.00	43	10.88	43	10.44
44	10.90	44	11.00	44	10.98	44	10.68
45	10.90	45	11.10	45	11.00	45	10.84
46	10.85	46	11.18	46	11.00	46	11.00
47	10.80	47	11.15	47	11.00	47	11.08
48	10.78	48	11.15	48	11.10	48	11.00
49	10.90	49	11.00	49	11.15	49	11.00
50	11	50	11.22	50	11.18	50	11

80W
100W



**TYPICAL CHARACTERISTICS
ON
LM-20M18G-100W-15DBM-ROHS**

Graph Peak Power Test (Pulsed)



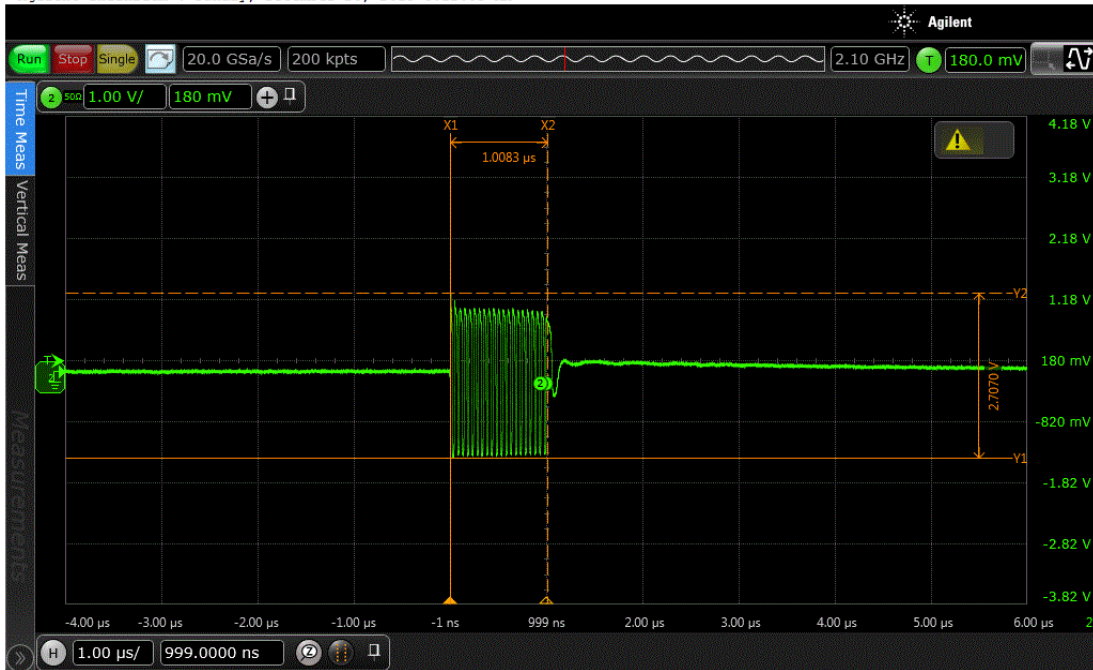
18 GHz

10us - 100Hz - DC 0.1%		10us - 100Hz - DC 0.1%		1us - 1KHz - DC 0.1%		40us - 2.5KHz - DC 10%		
POWER INPUT (dBm)	POWER OUTPUT (dBm)	POWER INPUT (dBm)	POWER OUTPUT (dBm)	POWER INPUT (dBm)	POWER OUTPUT (dBm)	POWER INPUT (dBm)	POWER OUTPUT (dBm)	
15	8.20	15	8.30	15	8.44	15	8.00	
20	8.28	20	8.30	20	8.68	20	8.42	
25	8.68	25	8.50	25	8.75	25	8.66	
30	9.00	30	8.90	30	8.99	30	8.82	
35	9.10	35	9.00	35	9.08	35	8.98	
40	9.10	40	9.00	40	9.10	40	9.22	
41	9.15	41	9.20	41	9.10	41	9.40	
42	9.20	42	9.28	42	9.18	42	9.40	
43	9.40	43	9.30	43	9.24	43	9.40	
44	9.68	44	9.30	44	9.33	44	9.30	
45	9.92	45	9.60	45	9.50	45	9.30	
46	9.95	46	9.88	46	9.66	46	9.38	
47	9.95	47	10.00	47	9.88	47	9.38	
48	9.98	48	10.10	48	9.88	48	9.38	
49	10.00	49	10.18	49	9.95	49	9.30	80W
50	10.14	50	10.22	50	9.97	50	9.50	100W

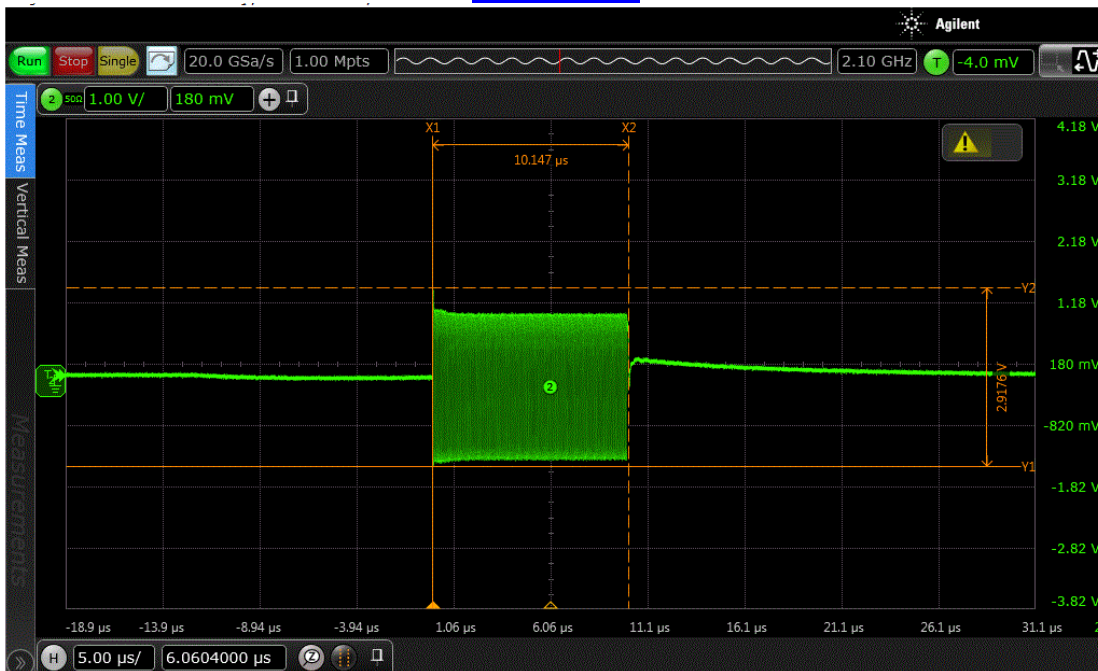


**TYPICAL CHARACTERISTICS
ON
LM-20M18G-100W-15DBM-ROHS**

**Full Pulse (20MHz)
Pulsed RF Input 10W PW 1us - PRF 10KHz – DC 1%
1us Per Div.**



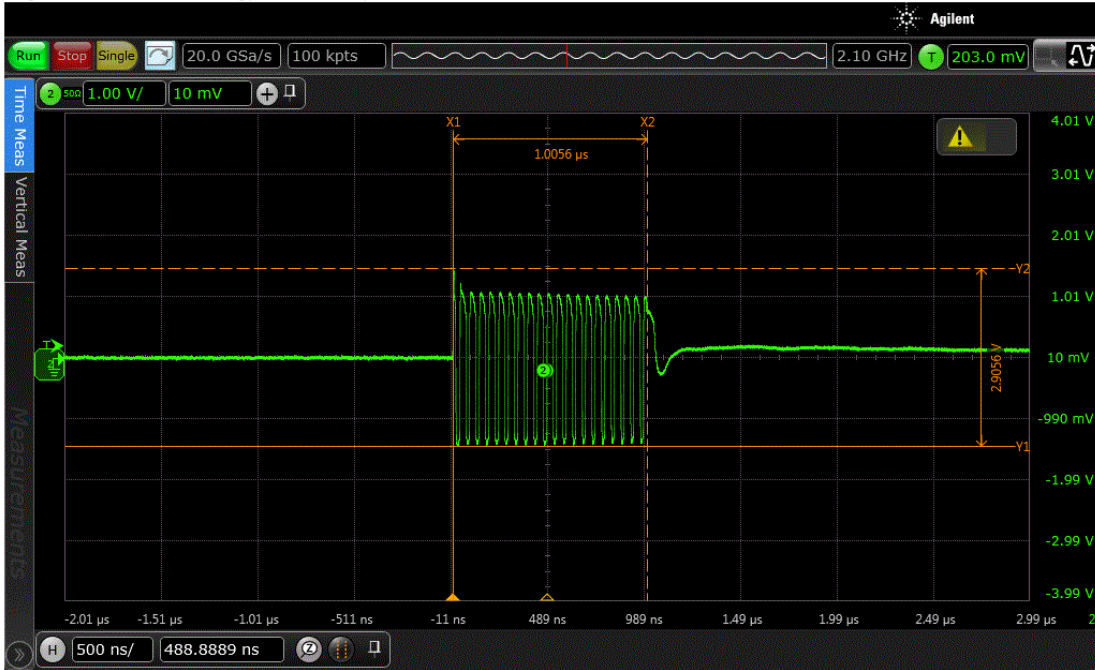
**Full Pulse (20MHz)
Pulsed RF Input 10W PW 10us - PRF 100Hz – DC 0.1%
5us Per Div.**



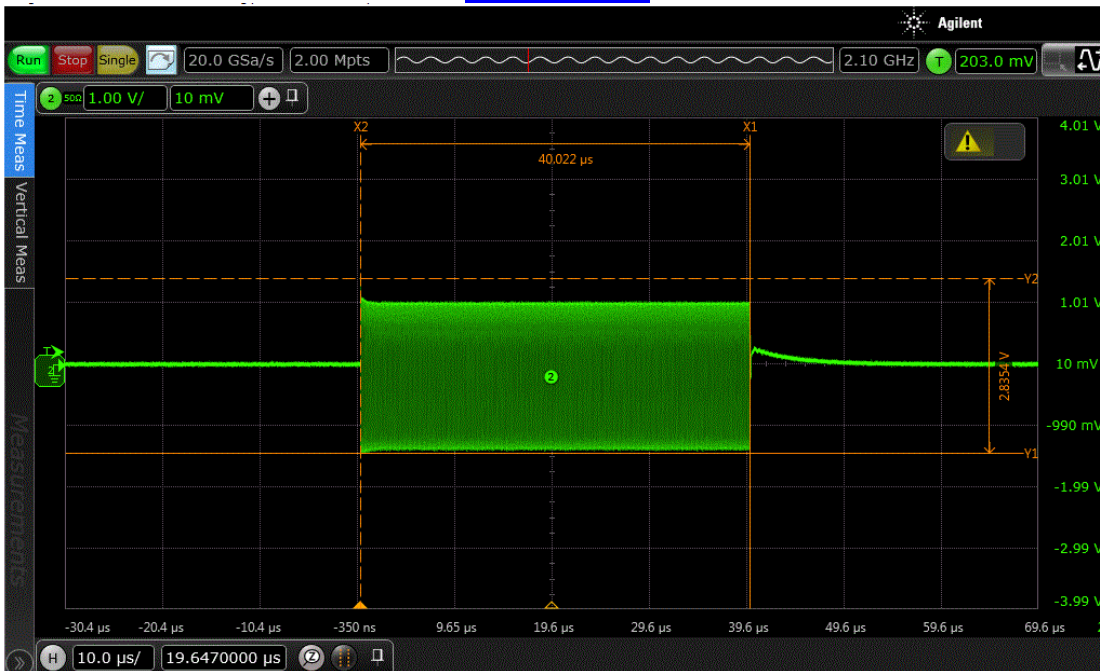


**TYPICAL CHARACTERISTICS
ON
LM-20M18G-100W-15DBM-ROHS**

Full Pulse (20MHz)
Pulsed RF Input 100W PW 1us - PRF 1kHz - DC 0.1%
500ns Per Div.



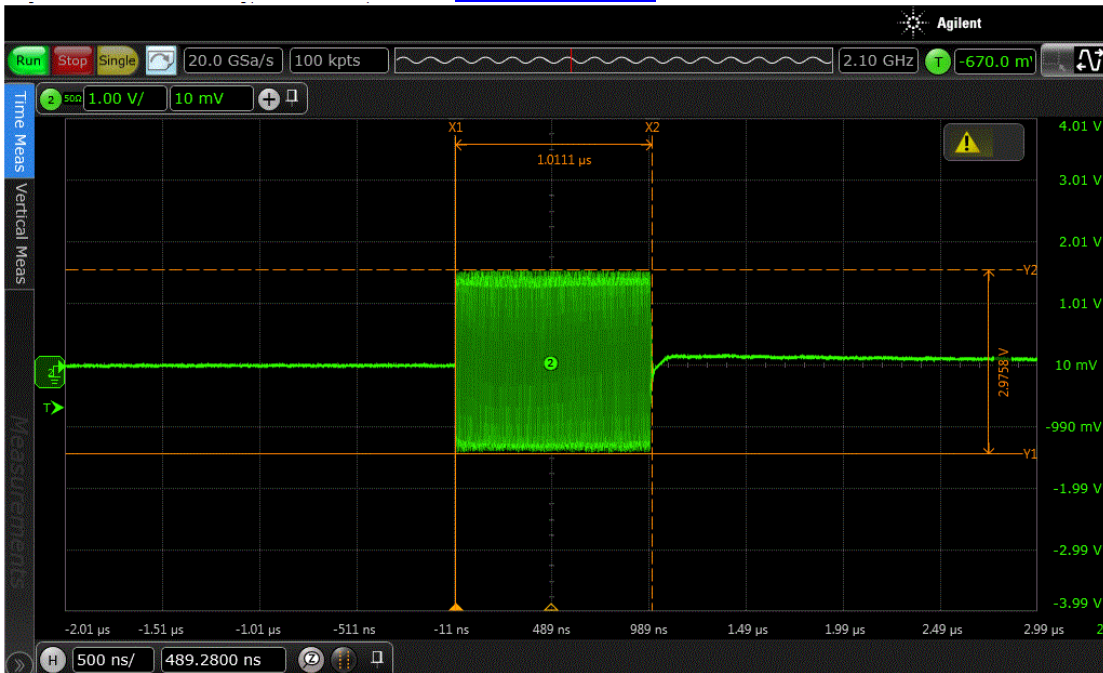
Full Pulse (20MHz)
Pulsed RF Input 100W PW 40us - PRF 2.5KHz - DC 10%
10us Per Div.



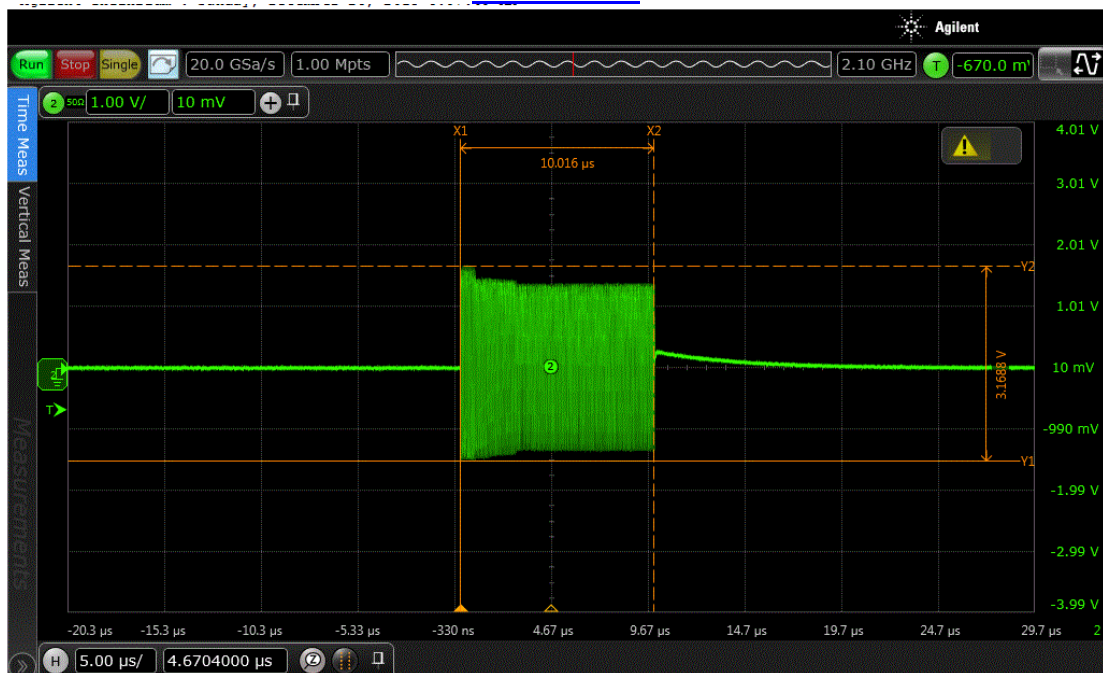


**TYPICAL CHARACTERISTICS
ON
LM-20M18G-100W-15DBM-ROHS**

**Full Pulse (500MHz)
Pulsed RF Input 10W PW 1us - PRF 10KHz – DC 1%
500ns Per Div.**



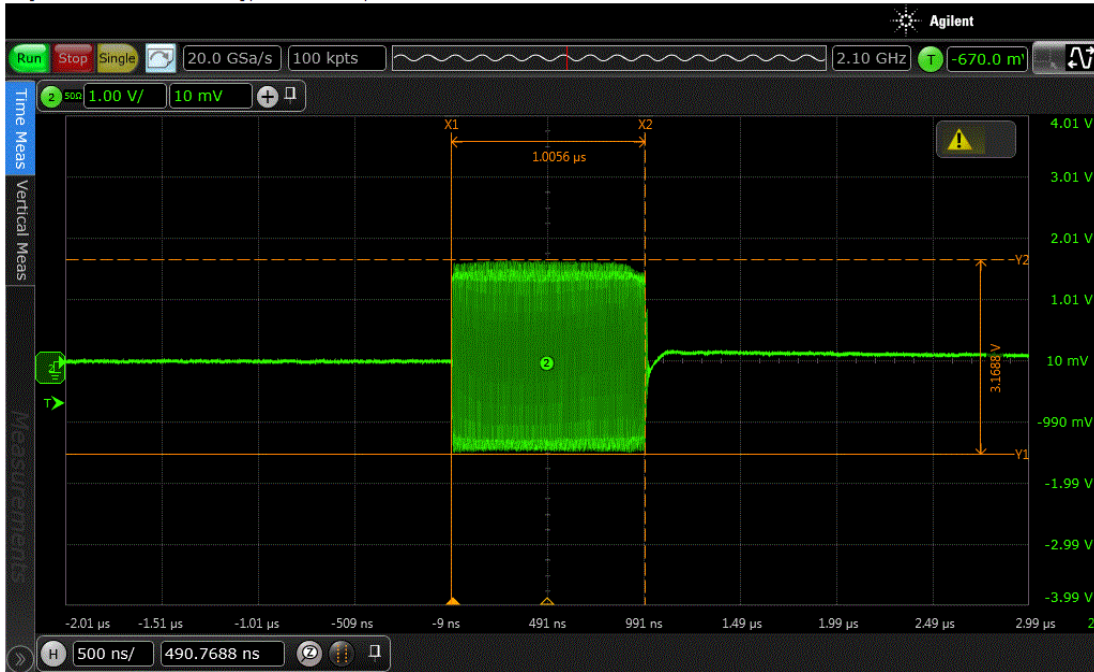
**Full Pulse (500MHz)
Pulsed RF Input 10W PW 10us - PRF 100Hz – DC 0.1%
5us Per Div.**



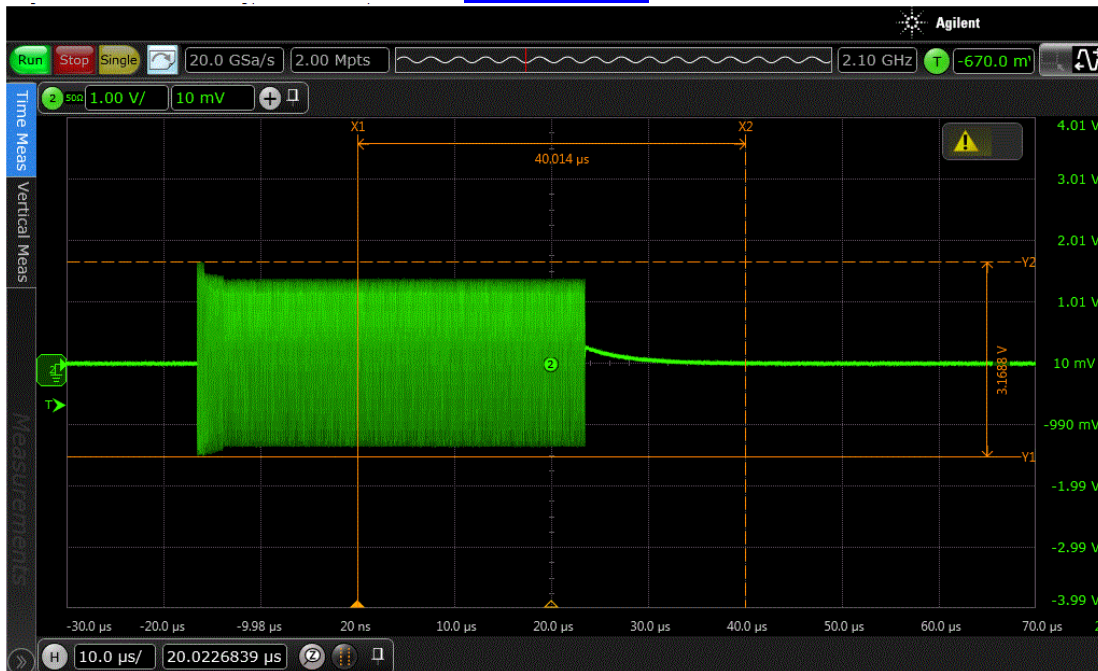


**TYPICAL CHARACTERISTICS
ON
LM-20M18G-100W-15DBM-ROHS**

**Full Pulse (500MHz)
Pulsed RF Input 100W PW 1us - PRF 1KHz - DC 0.1%
500ns Per Div.**



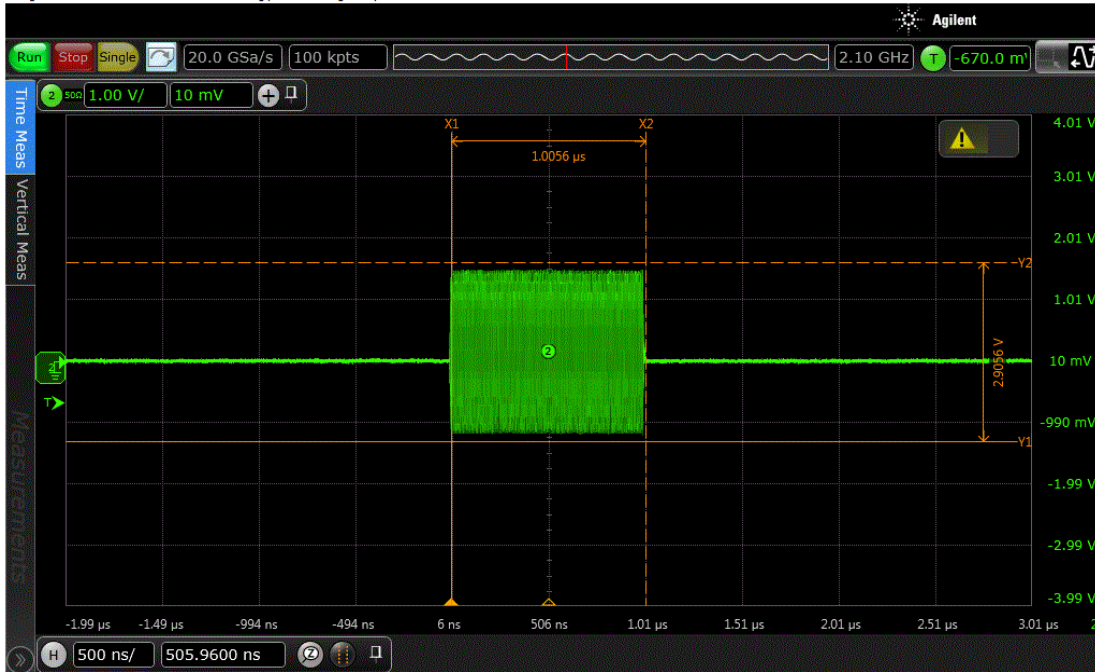
**Full Pulse (500MHz)
Pulsed RF Input 100W PW 40us - PRF 2.5KHz - DC 10%
10us Per Div.**



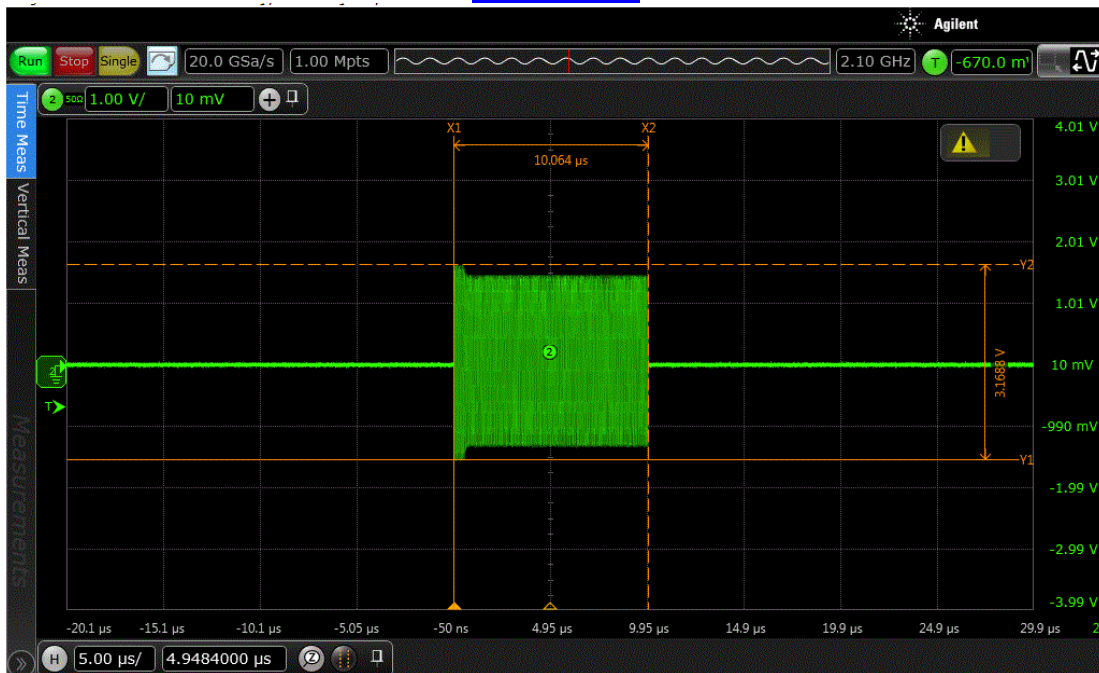


**TYPICAL CHARACTERISTICS
ON
LM-20M18G-100W-15DBM-ROHS**

**Full Pulse (1GHz)
Pulsed RF Input 10W PW 1us - PRF 10KHz – DC 1%
500ns Per Div.**



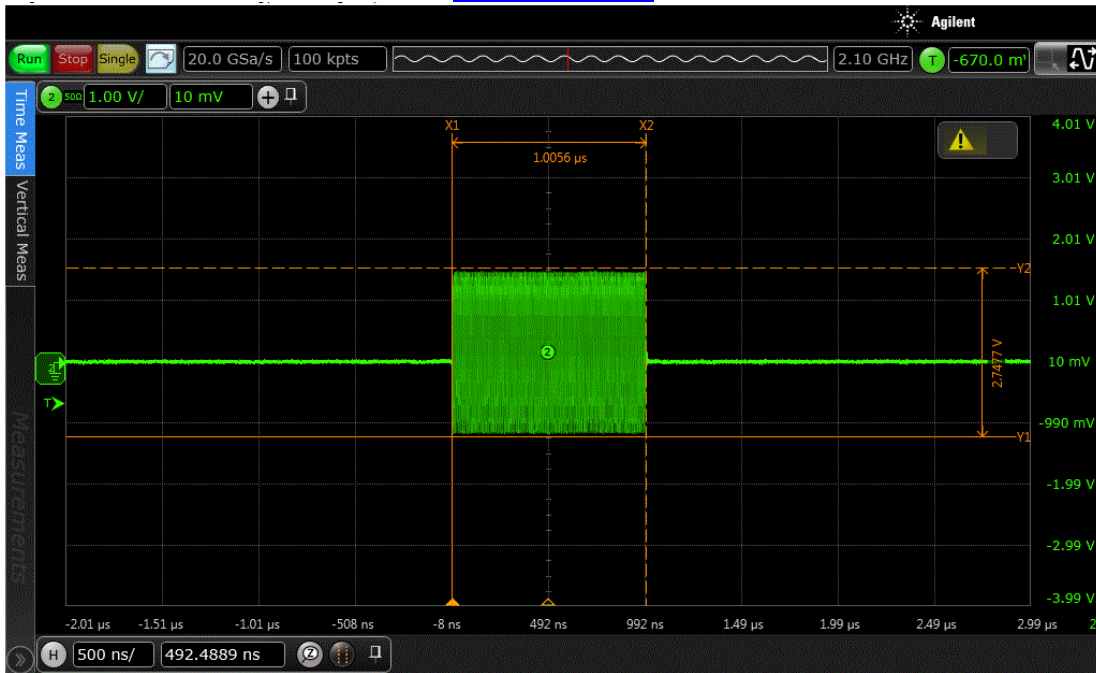
**Full Pulse (1GHz)
Pulsed RF Input 100W PW 10us - PRF 100Hz – DC 0.1%
5us Per Div.**



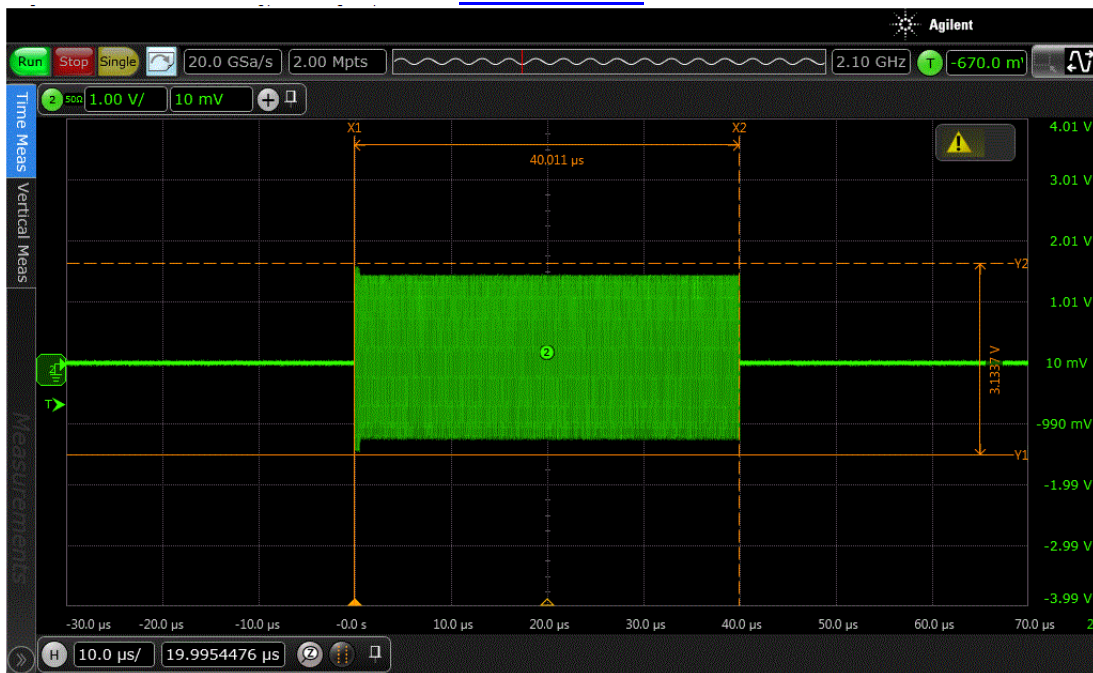


**TYPICAL CHARACTERISTICS
ON
LM-20M18G-100W-15DBM-ROHS**

**Full Pulse (1GHz)
Pulsed RF Input 100W PW 1us - PRF 1KHz - DC 0.1%
500ns Per Div.**



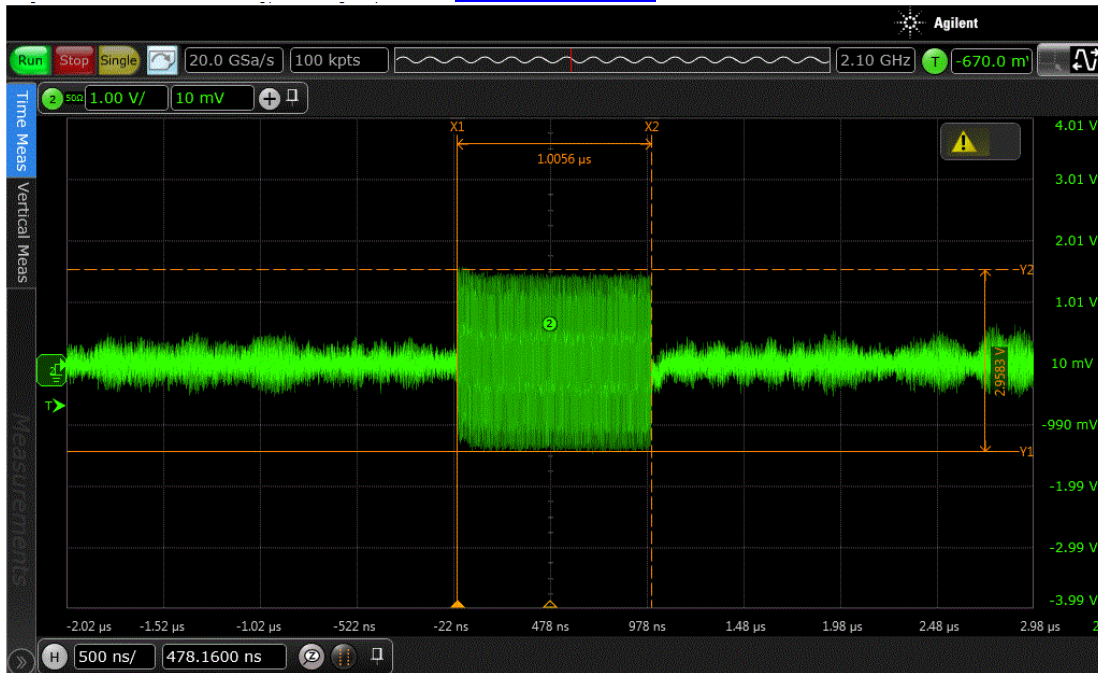
**Full Pulse (1GHz)
Pulsed RF Input 100W PW 40us - PRF 2.5KHz - DC 10%
10us Per Div.**



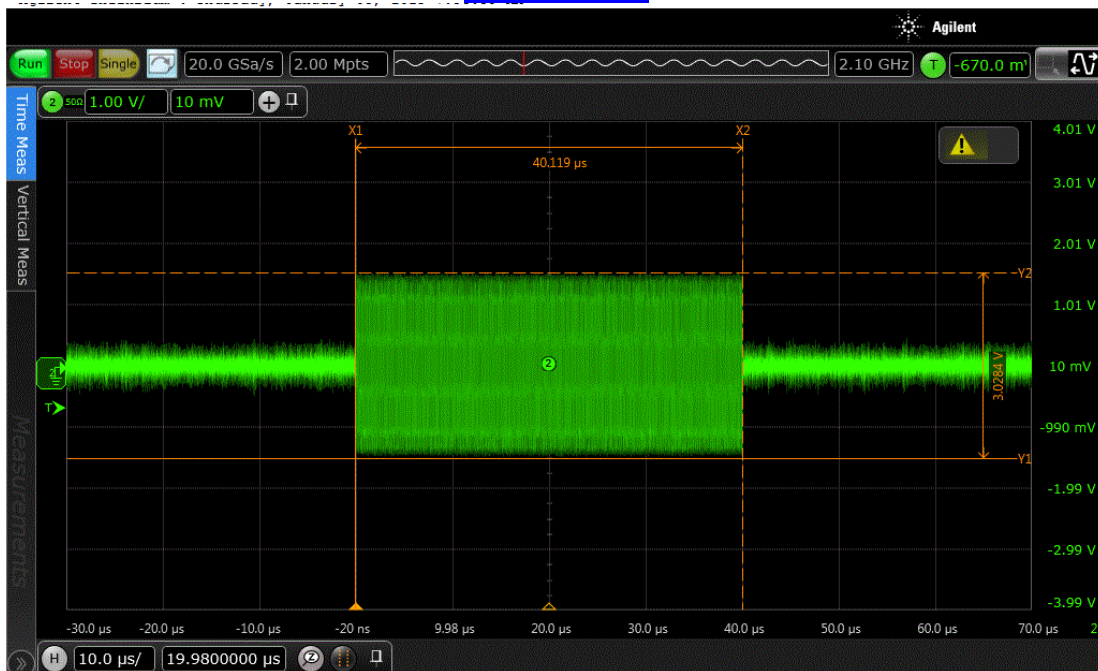


**TYPICAL CHARACTERISTICS
ON
LM-20M18G-100W-15DBM-ROHS**

**Full Pulse (2GHz)
Pulsed RF Input 100W PW 1us - PRF 1KHz - DC 0.1%
500ns Per Div.**



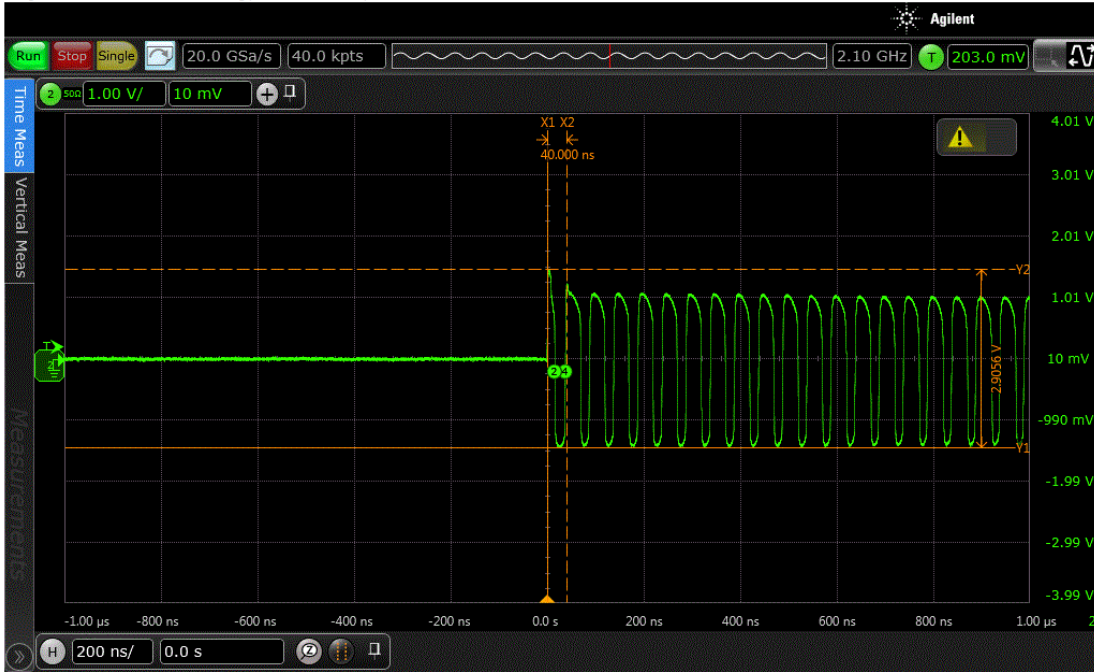
**Full Pulse (2GHz)
Pulsed RF Input 100W PW 40us - PRF 2.5KHz - DC 10%
10us Per Div.**



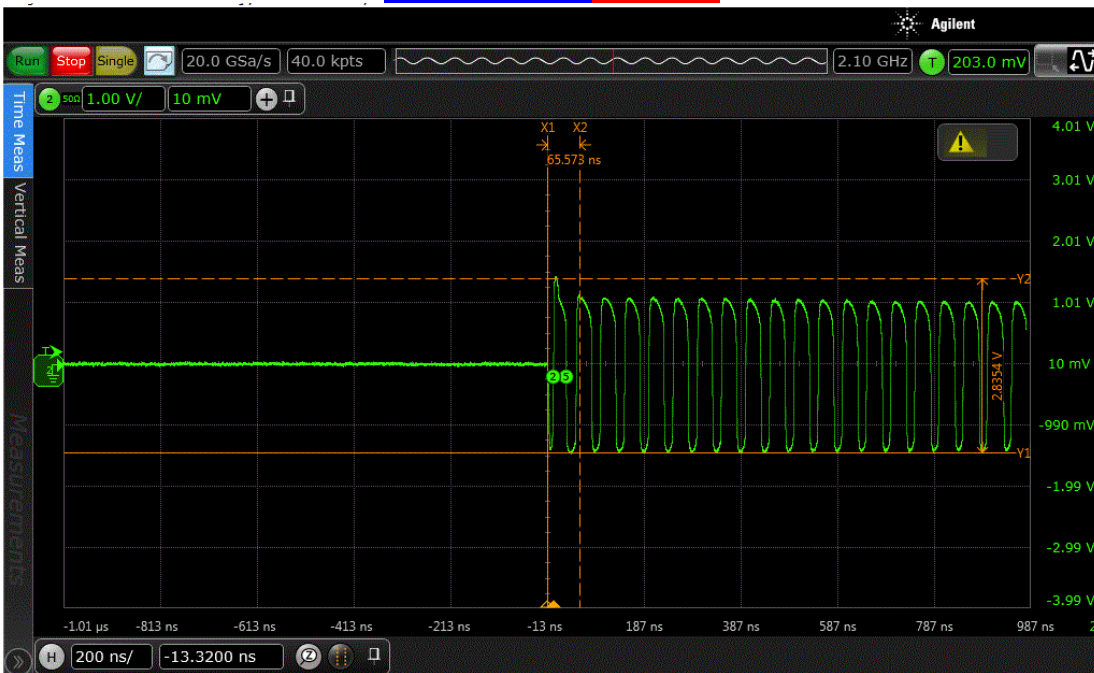


**TYPICAL CHARACTERISTICS
ON
LM-20M18G-100W-15DBM-ROHS**

Rise Time (20MHz)
Pulsed RF Input 100W PW 1us - PRF 1KHz - DC 0.1%
200ns Per Div. (40.00 ns)



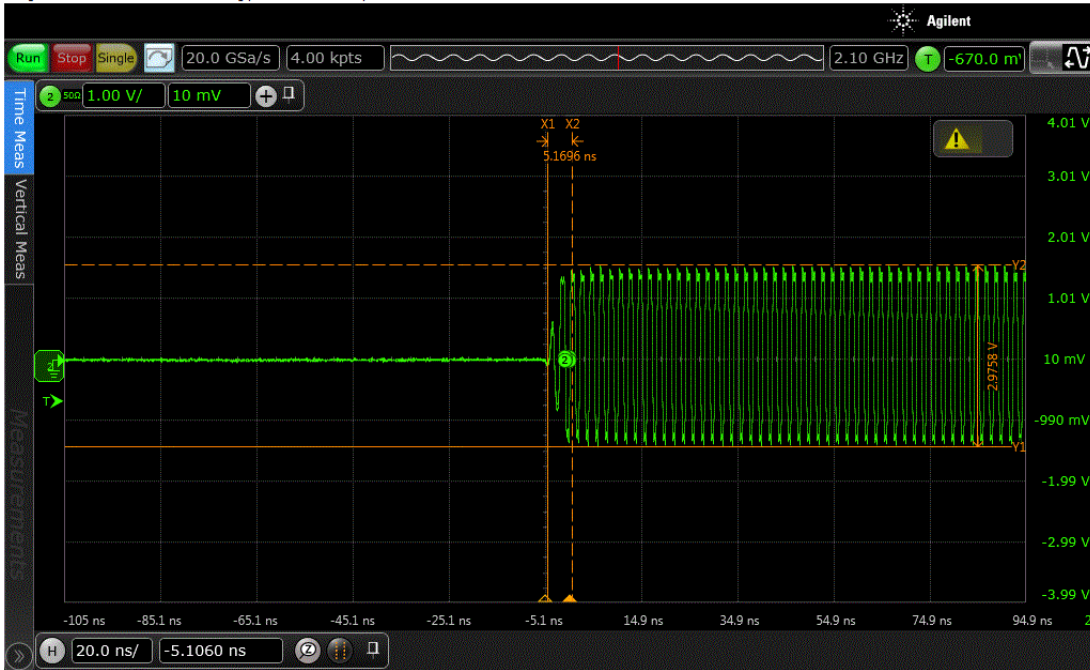
Rise Time (20MHz)
Pulsed RF Input 100W PW 40us - PRF 2.5KHz - DC 10%
200ns Per Div. (65.57ns)



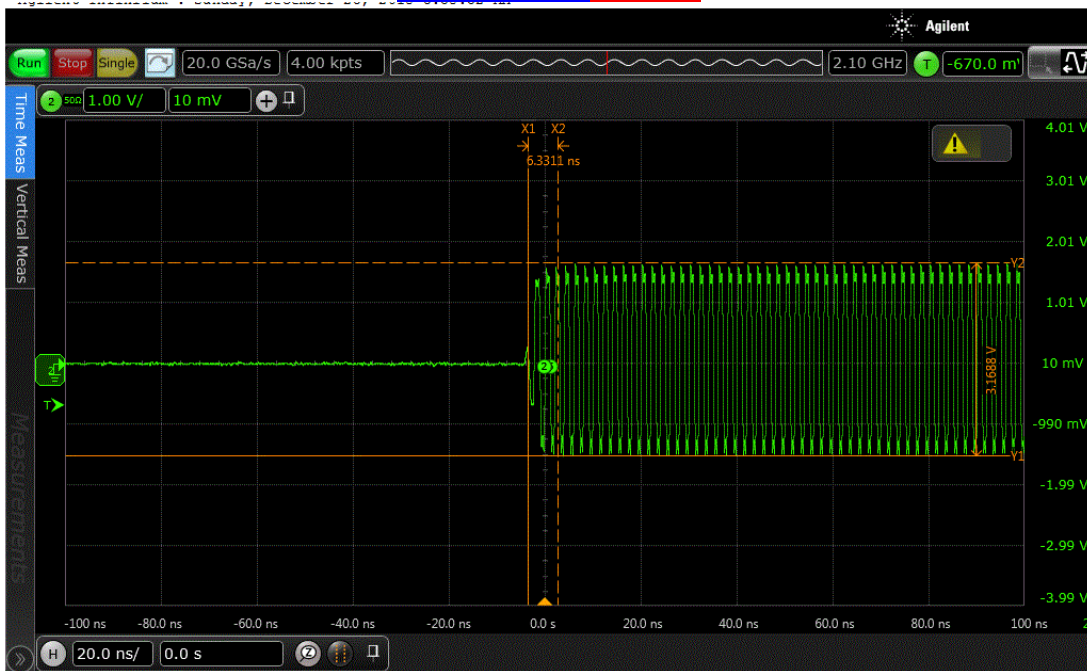


**TYPICAL CHARACTERISTICS
ON
LM-20M18G-100W-15DBM-ROHS**

Rise Time (500MHz)
Pulsed RF Input 10W PW 1us - PRF 10KHz - DC 1%
20ns Per Div. (5.17ns)



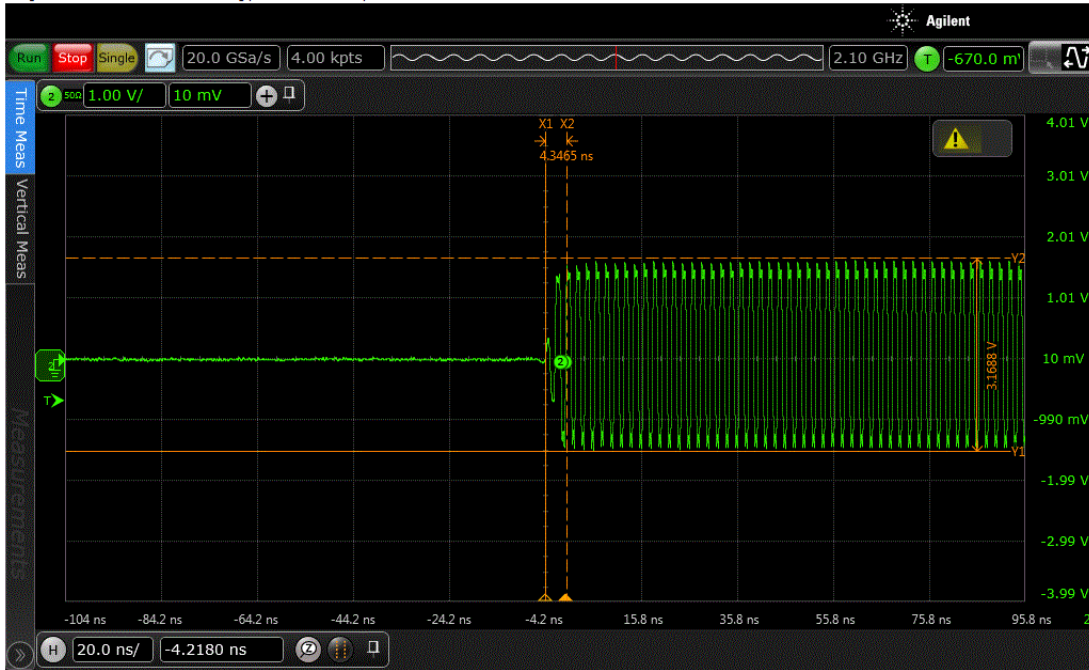
Rise Time (500MHz)
Pulsed RF Input 10W PW 10us - PRF 100Hz - DC 0.1%
20ns Per Div. (6.33ns)



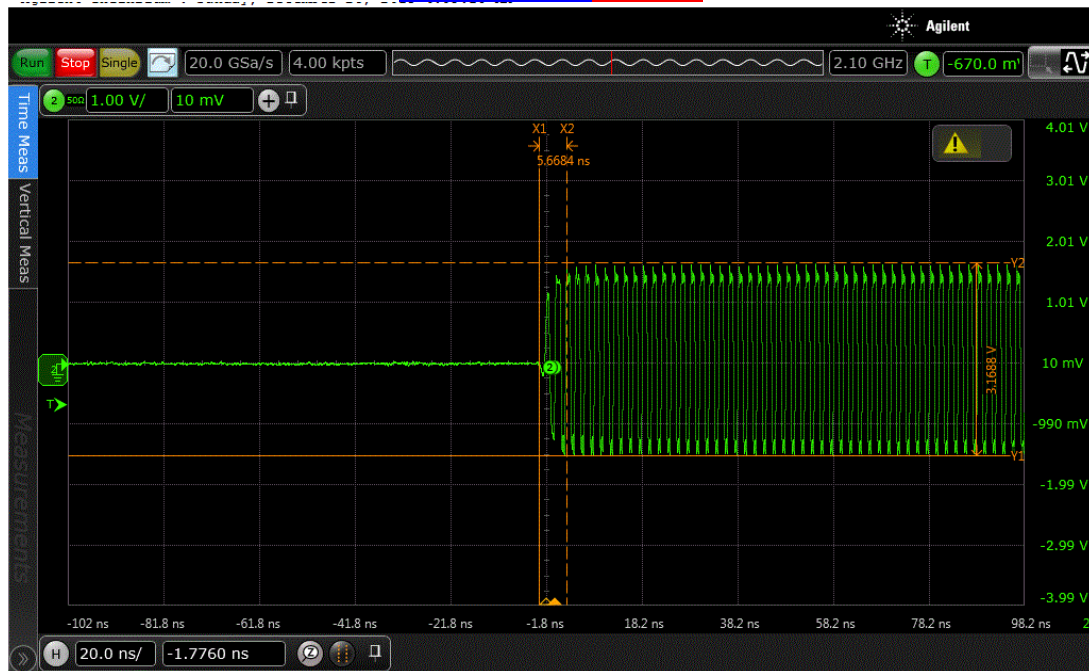


**TYPICAL CHARACTERISTICS
ON
LM-20M18G-100W-15DBM-ROHS**

Rise Time (500MHz)
Pulsed RF Input 100W PW 1us - PRF 1KHz - DC 0.1%
20ns Per Div. (4.35 ns)



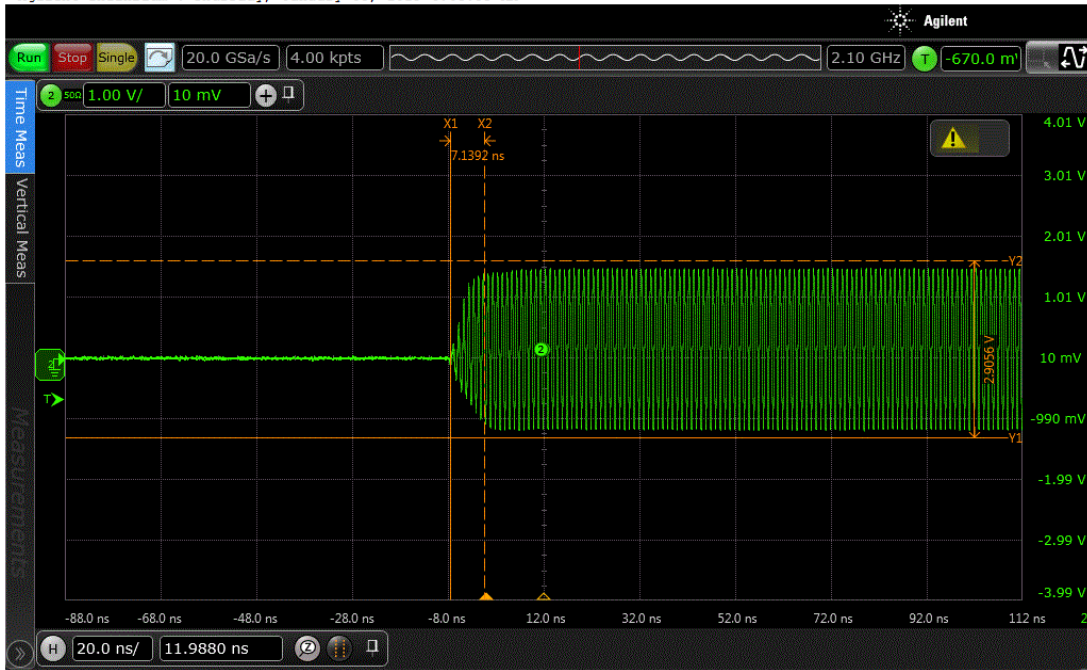
Rise Time (500MHz)
Pulsed RF Input 100W PW 40us - PRF 2.5KHz - DC 10%
20ns Per Div. (5.67ns)



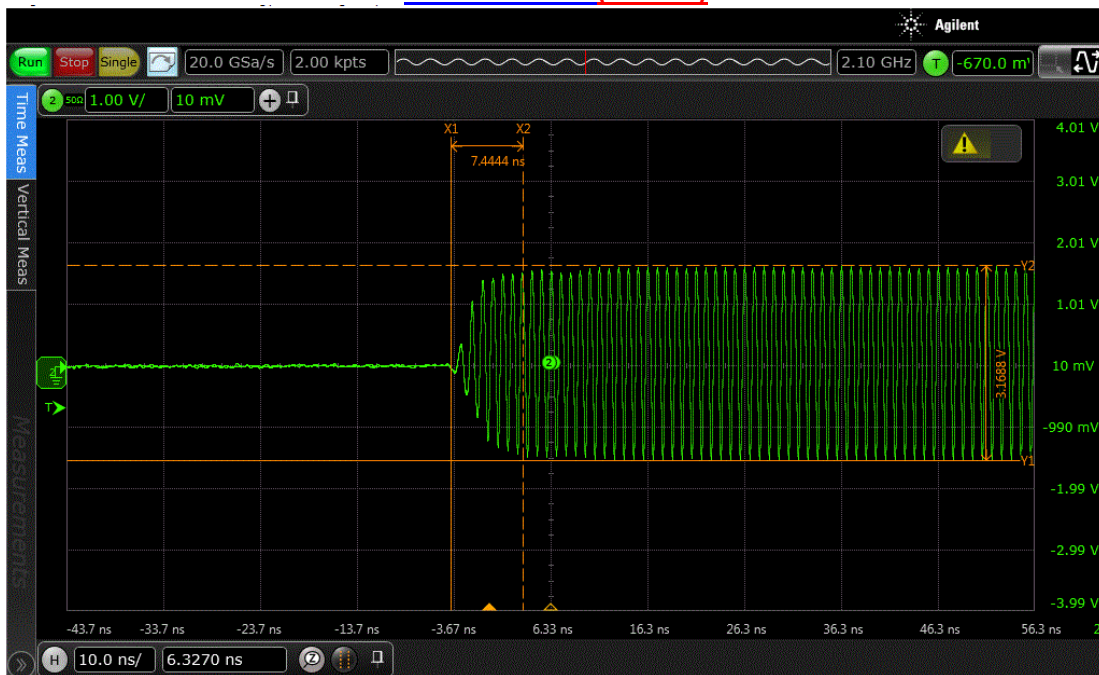


**TYPICAL CHARACTERISTICS
ON
LM-20M18G-100W-15DBM-ROHS**

Rise Time (1GHz)
Pulsed RF Input 10W PW 1us - PRF 10KHz - DC 1%
20ns Per Div. (7.14 ns)



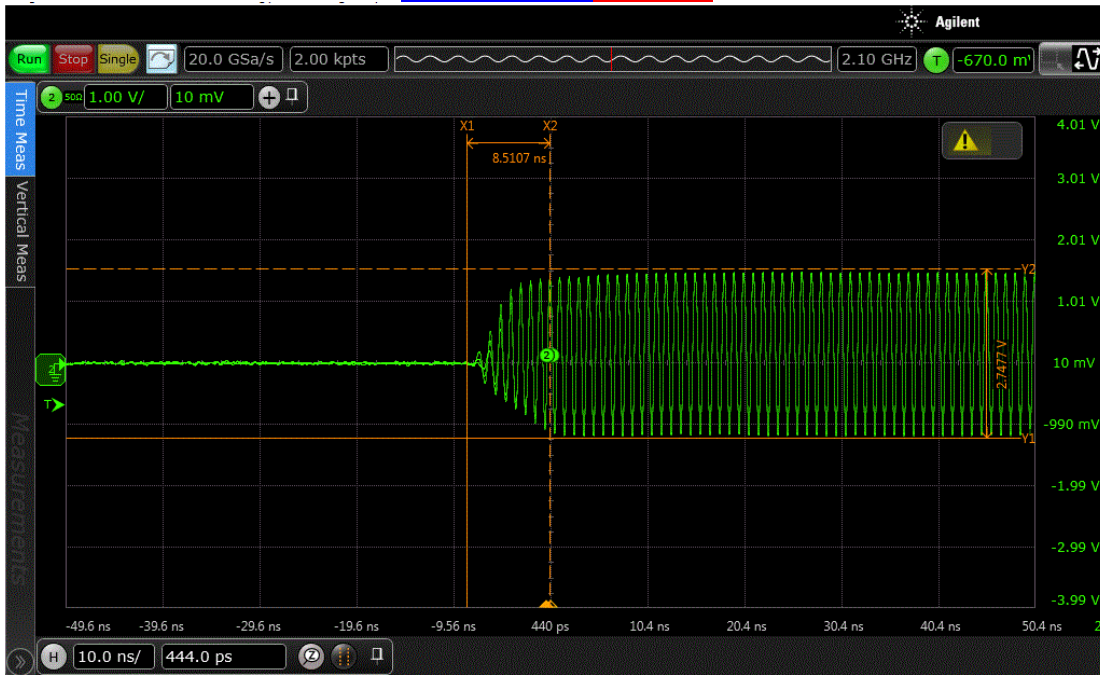
Rise Time (1GHz)
Pulsed RF Input 100W PW 10us - PRF 100Hz - DC 0.1%
10ns Per Div. (7.44ns)



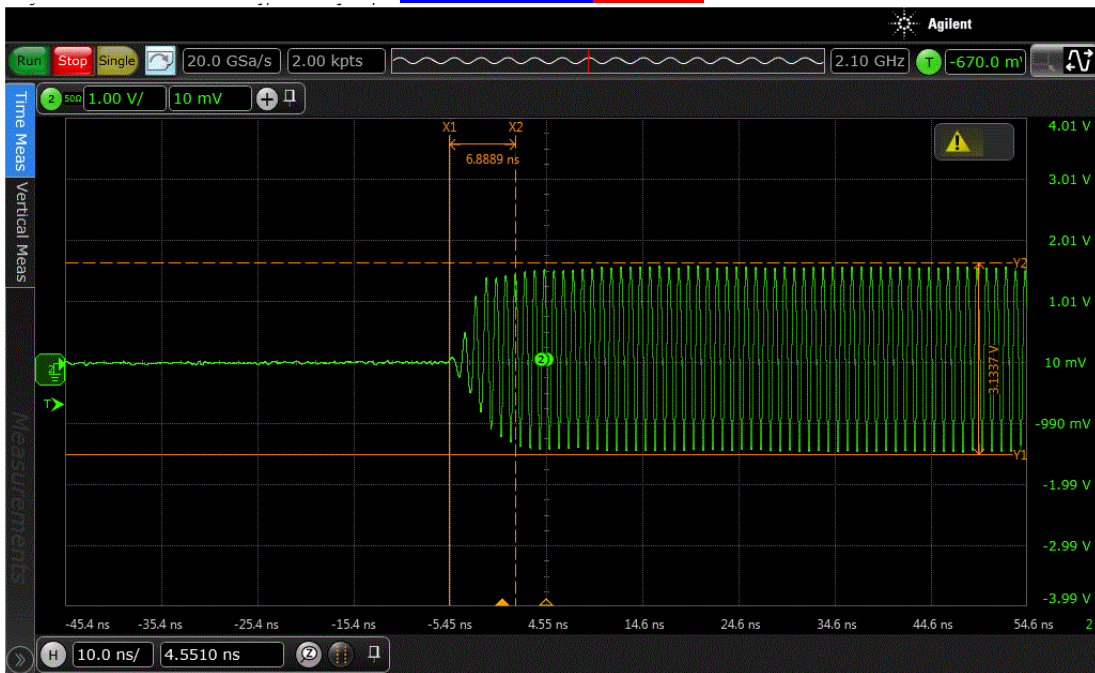


**TYPICAL CHARACTERISTICS
ON
LM-20M18G-100W-15DBM-ROHS**

Rise Time (1GHz)
Pulsed RF Input 100W PW 1us - PRF 1KHz - DC 0.1%
10ns Per Div. (8.51 ns)



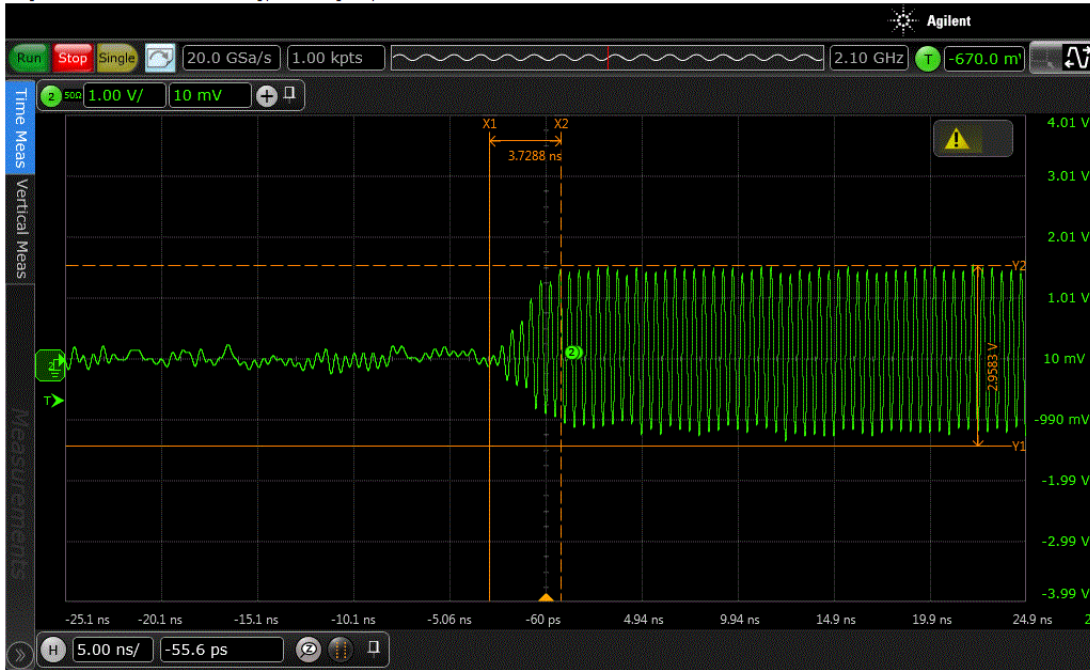
Rise Time (1GHz)
Pulsed RF Input 100W PW 40us - PRF 2.5KHz - DC 10%
10ns Per Div. (6.89ns)



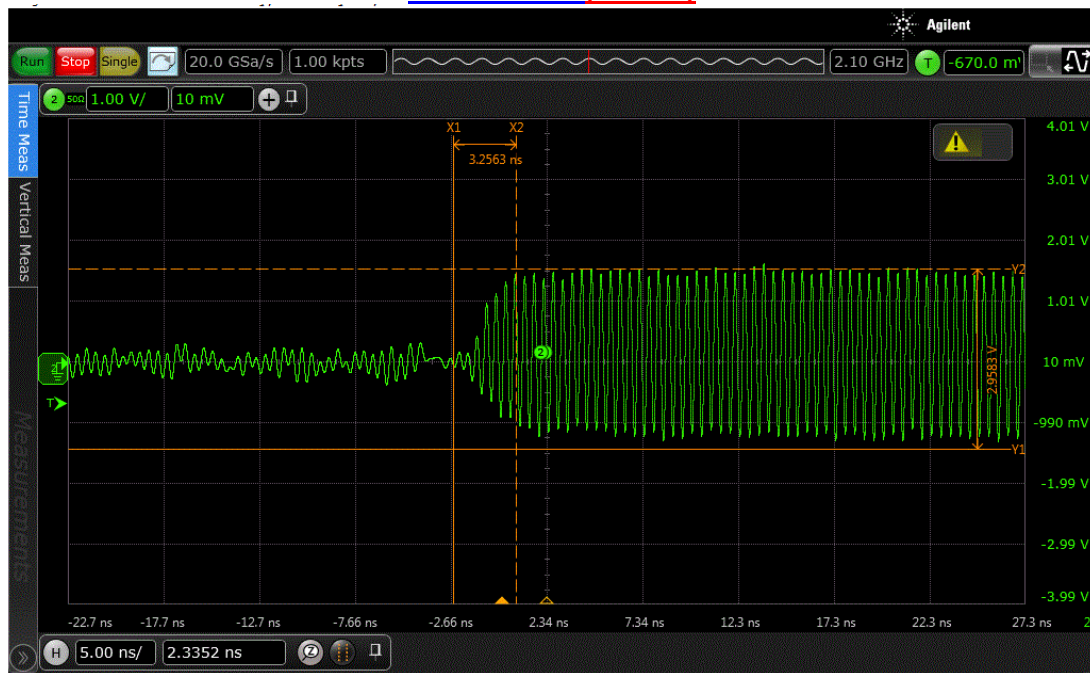


**TYPICAL CHARACTERISTICS
ON
LM-20M18G-100W-15DBM-ROHS**

Rise Time (2GHz)
Pulsed RF Input 10W PW 1us - PRF 10KHz - DC 1%
5ns Per Div. (3.73ns)



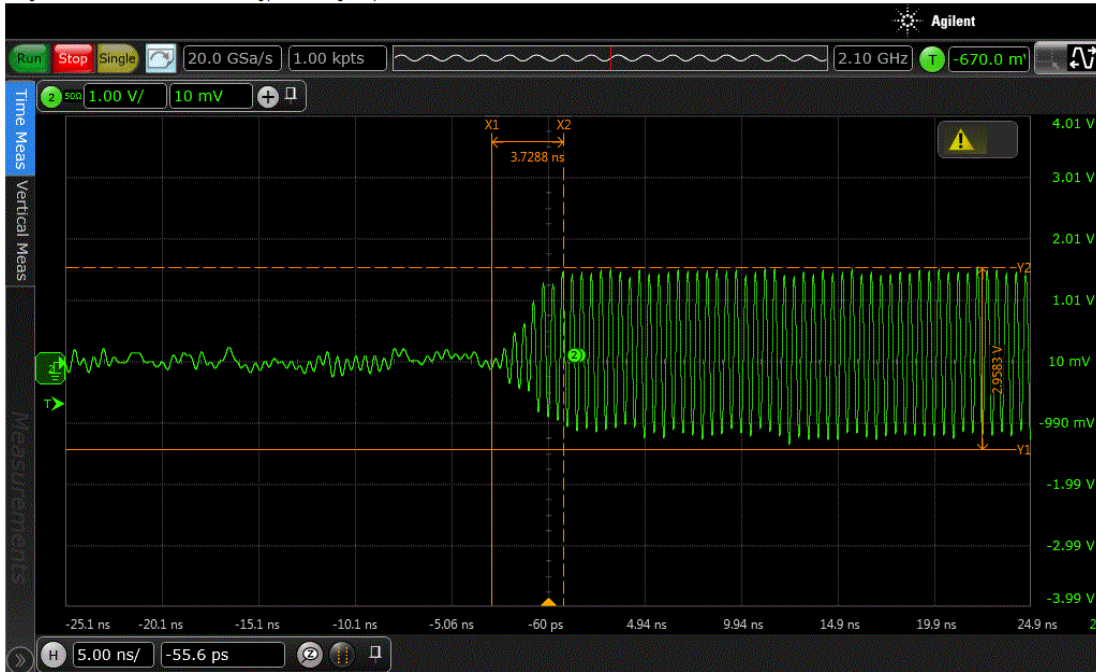
Rise Time (2GHz)
Pulsed RF Input 100W PW 10us - PRF 100Hz - DC 0.1%
5ns Per Div. (3.26ns)



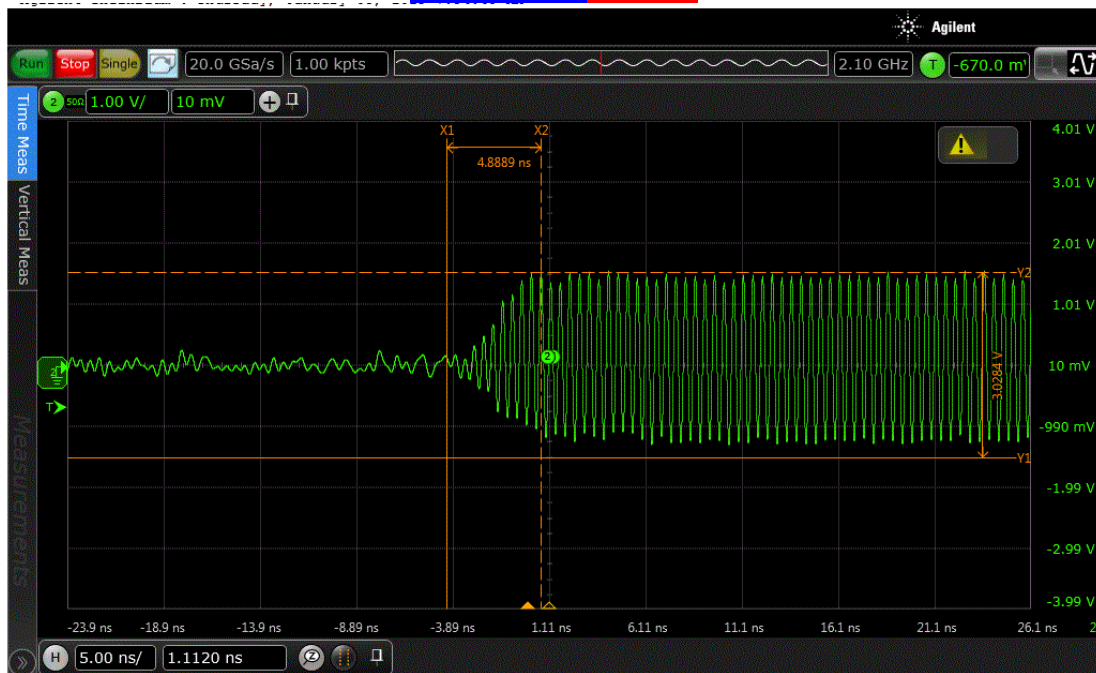


**TYPICAL CHARACTERISTICS
ON
LM-20M18G-100W-15DBM-ROHS**

Rise Time (2GHz)
Pulsed RF Input 100W PW 1us - PRF 1KHz - DC 0.1%
5ns Per Div. (3.73 ns)



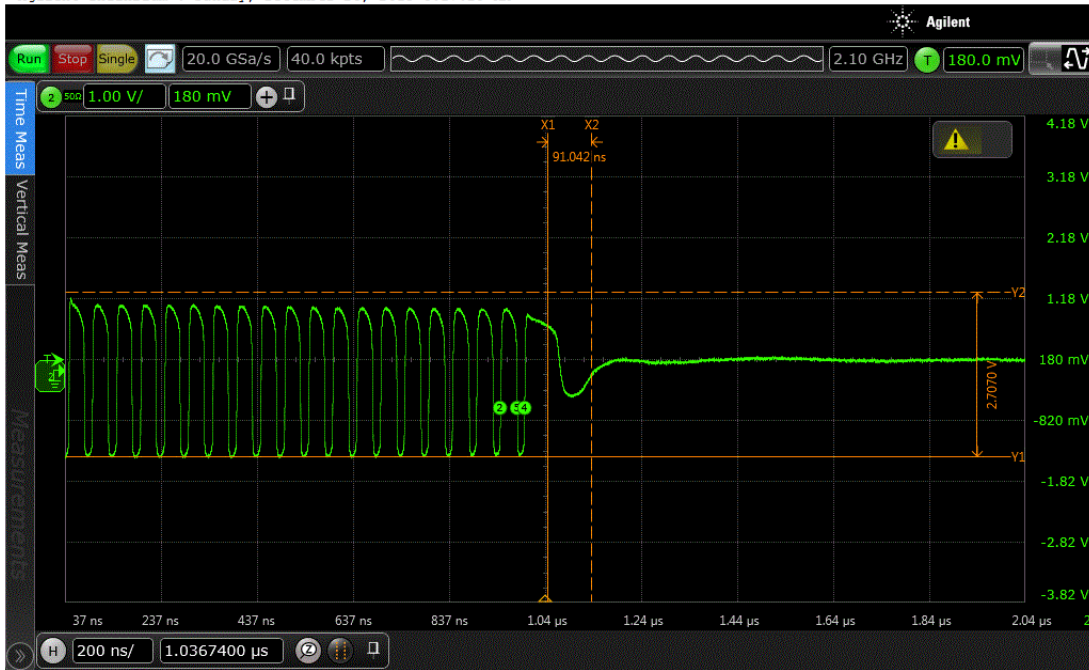
Rise Time (2GHz)
Pulsed RF Input 100W PW 40us - PRF 2.5KHz - DC 10%
5ns Per Div. (4.89ns)



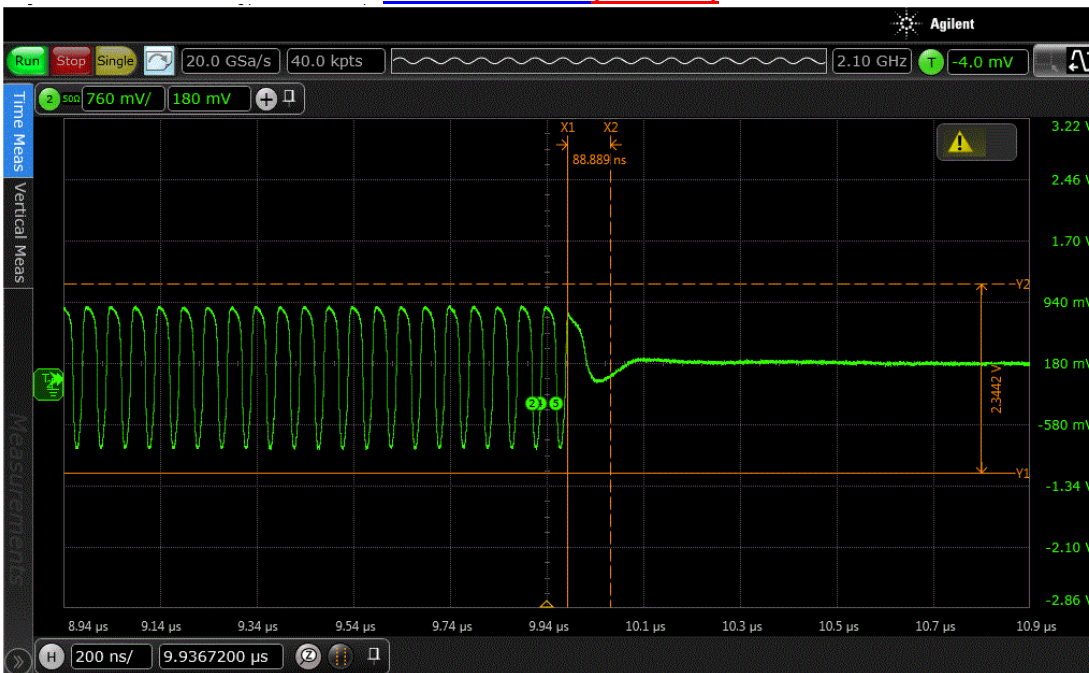


**TYPICAL CHARACTERISTICS
ON
LM-20M18G-100W-15DBM-ROHS**

**Recovery (20MHz)
Pulsed RF Input 10W PW 1us - PRF 10KHz – DC 1%
200ns Per Div. (91.04ns)**



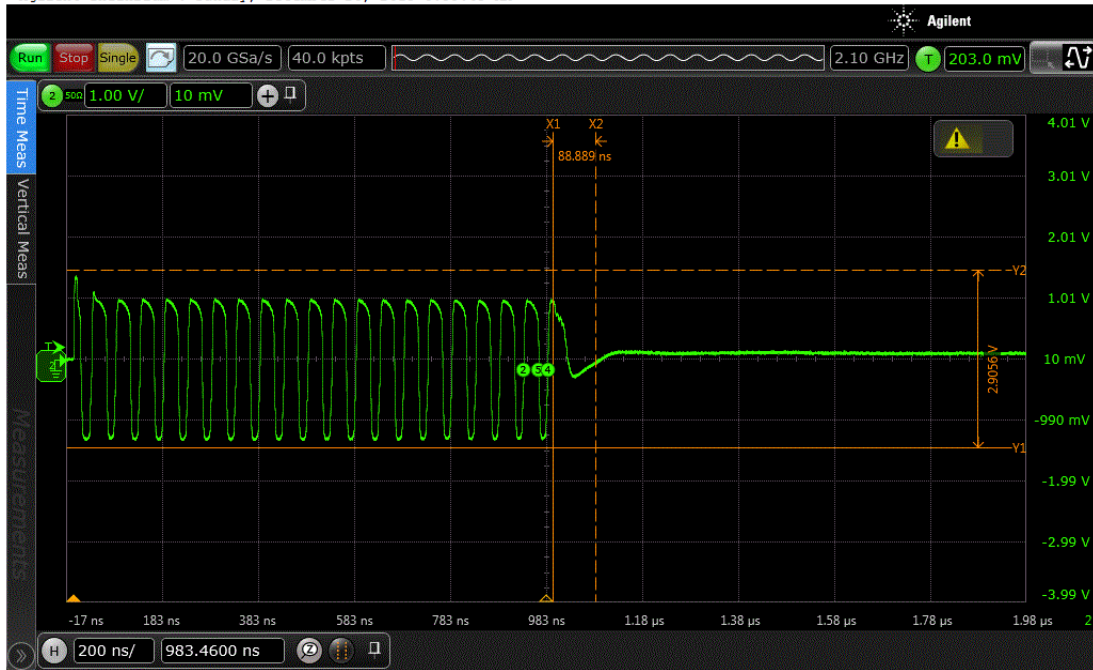
**Recovery (20MHz)
Pulsed RF Input 10W PW 10us - PRF 100Hz – DC 0.1%
200ns Per Div. (88.88ns)**



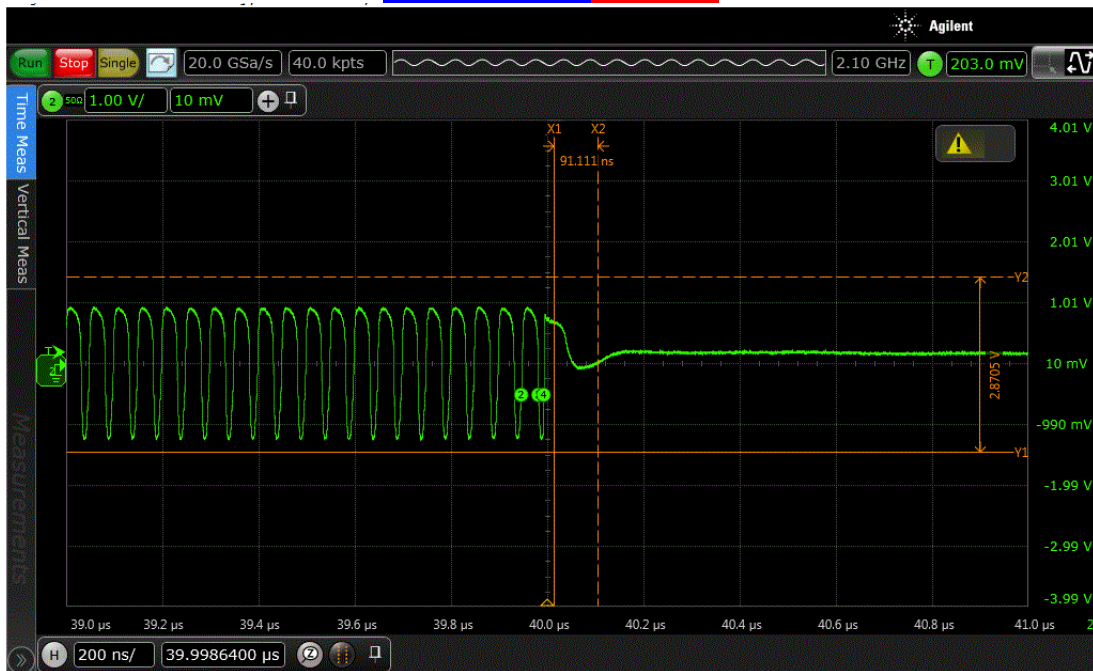


**TYPICAL CHARACTERISTICS
ON
LM-20M18G-100W-15DBM-ROHS**

Recovery (20MHz)
Pulsed RF Input 100W PW 1us - PRF 1KHz - DC 0.1%
200ns Per Div. (88.89ns)



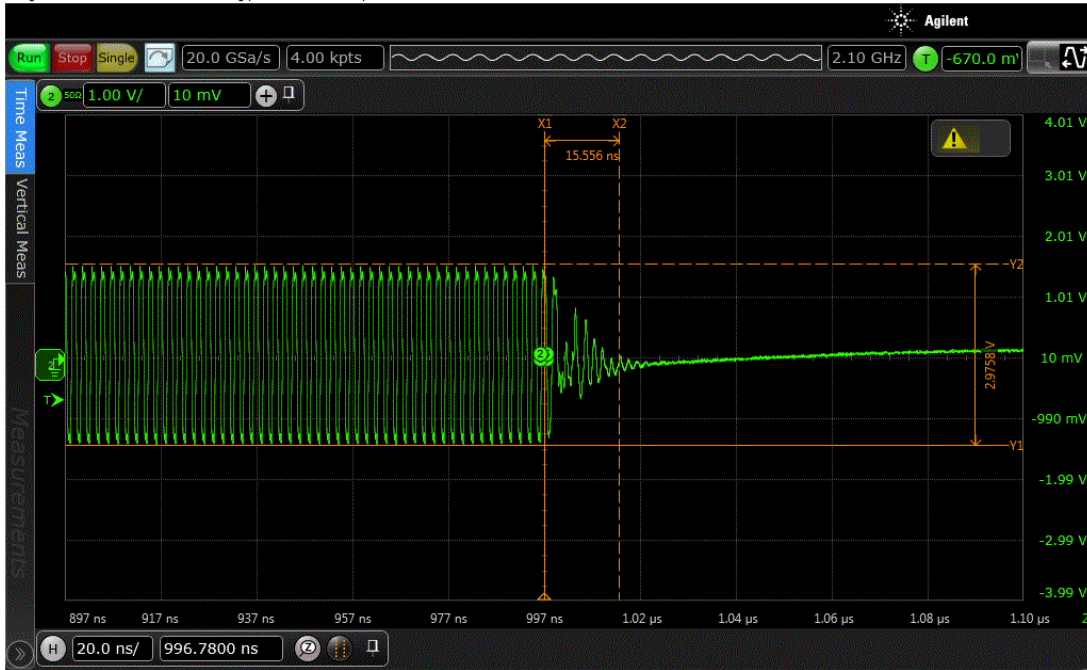
Recovery (20MHz)
Pulsed RF Input 100W PW 40us - PRF 2.5KHz - DC 10%
200ns Per Div. (91.11ns)





**TYPICAL CHARACTERISTICS
ON
LM-20M18G-100W-15DBM-ROHS**

**Recovery (500MHz)
Pulsed RF Input 10W PW 1us - PRF 10KHz – DC 1%
20ns Per Div. (15.56ns)**



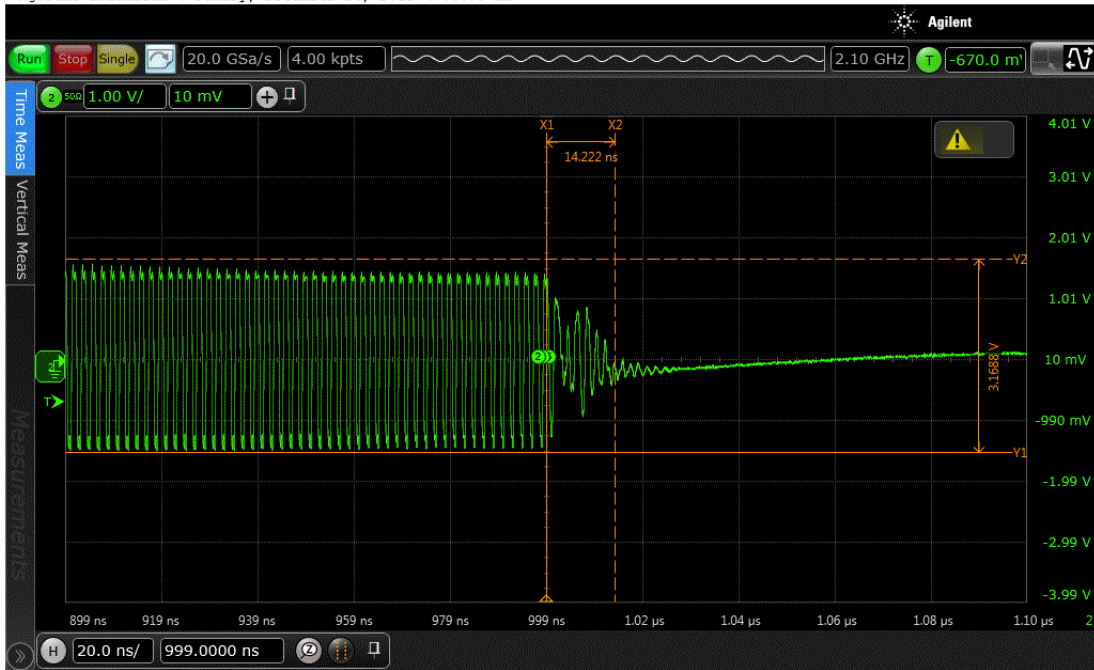
**Recovery (500MHz)
Pulsed RF Input 10W PW 10us - PRF 100Hz – DC 0.1%
50ns Per Div. (26.66ns)**



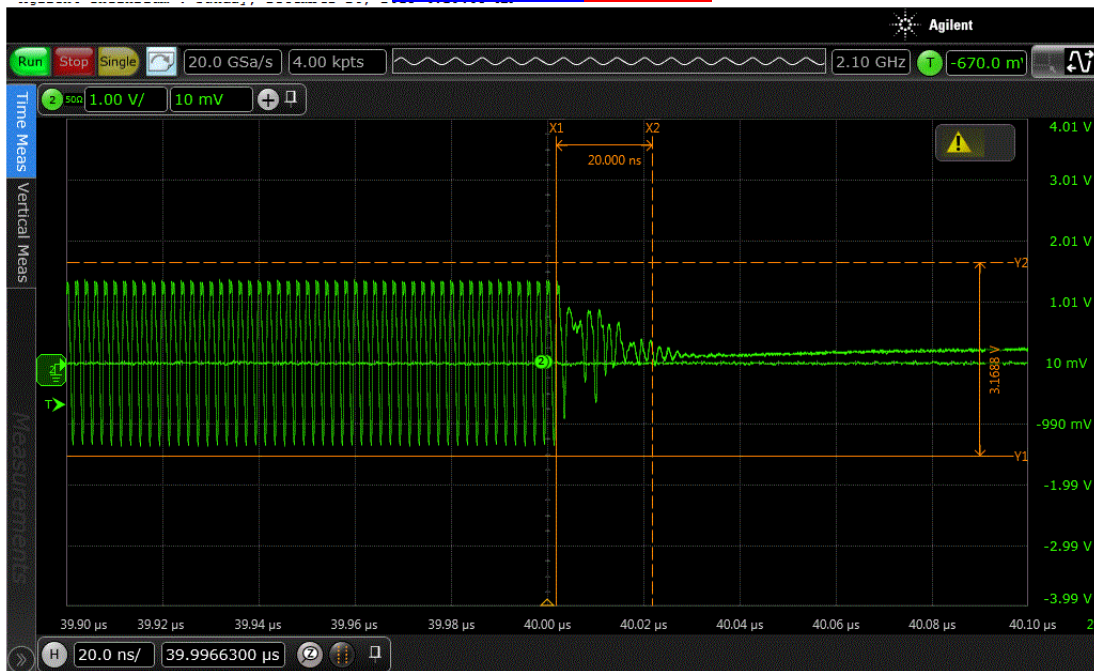


**TYPICAL CHARACTERISTICS
ON
LM-20M18G-100W-15DBM-ROHS**

Recovery (500MHz)
Pulsed RF Input 100W PW 1us - PRF 1KHz - DC 0.1%
20ns Per Div. (14.22 ns)



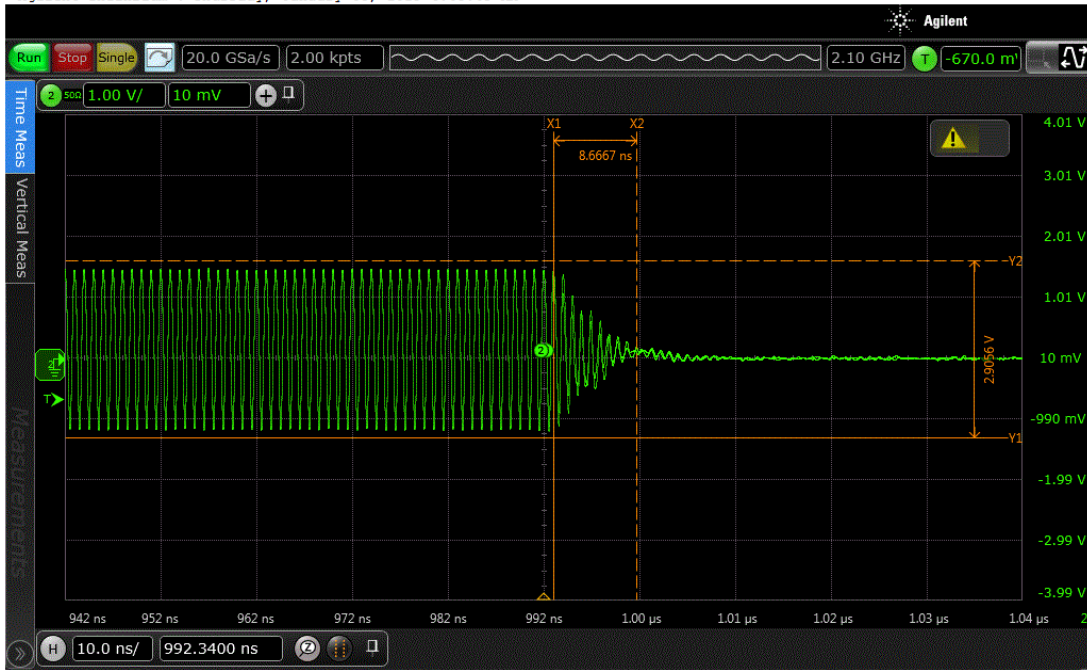
Recovery (500MHz)
Pulsed RF Input 100W PW 40us - PRF 2.5KHz - DC 10%
20ns Per Div. (20.00ns)



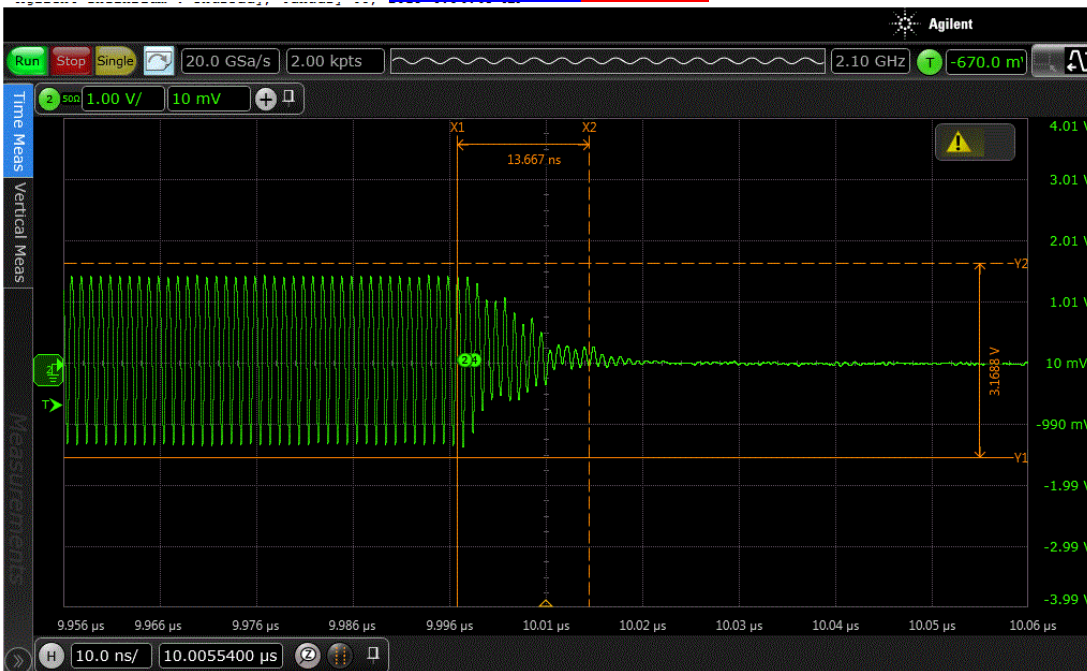


**TYPICAL CHARACTERISTICS
ON
LM-20M18G-100W-15DBM-ROHS**

Recovery (1GHz)
Pulsed RF Input 10W PW 1us - PRF 10KHz – DC 1%
10ns Per Div. (8.66ns)



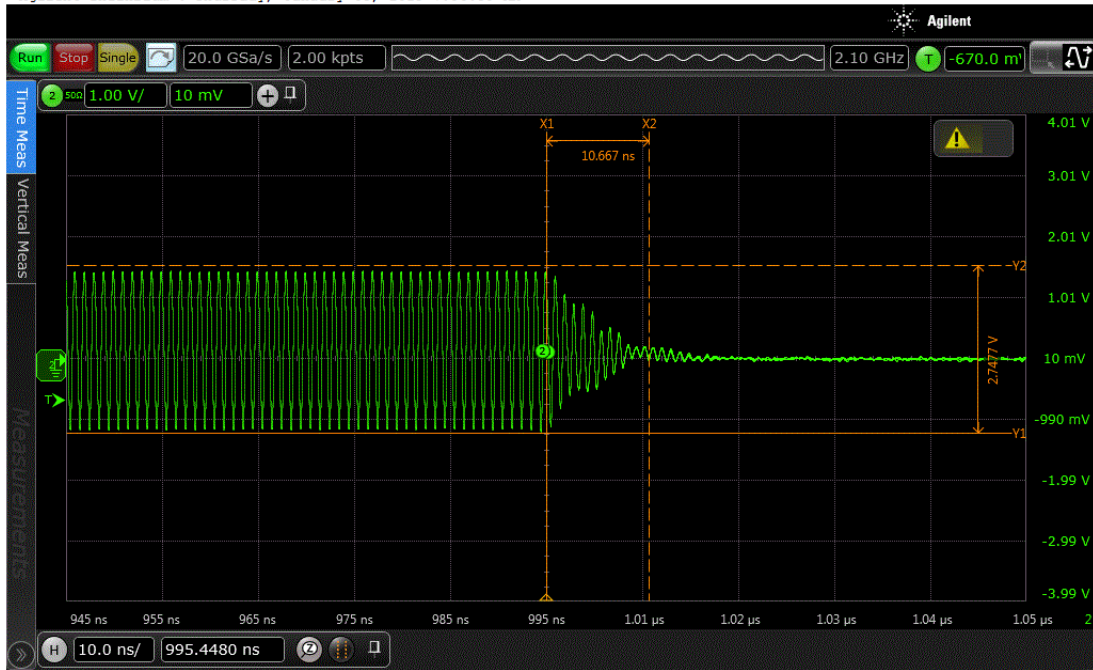
Recovery (1GHz)
Pulsed RF Input 100W PW 10us - PRF 100Hz – DC 0.1%
10ns Per Div. (13.68ns)



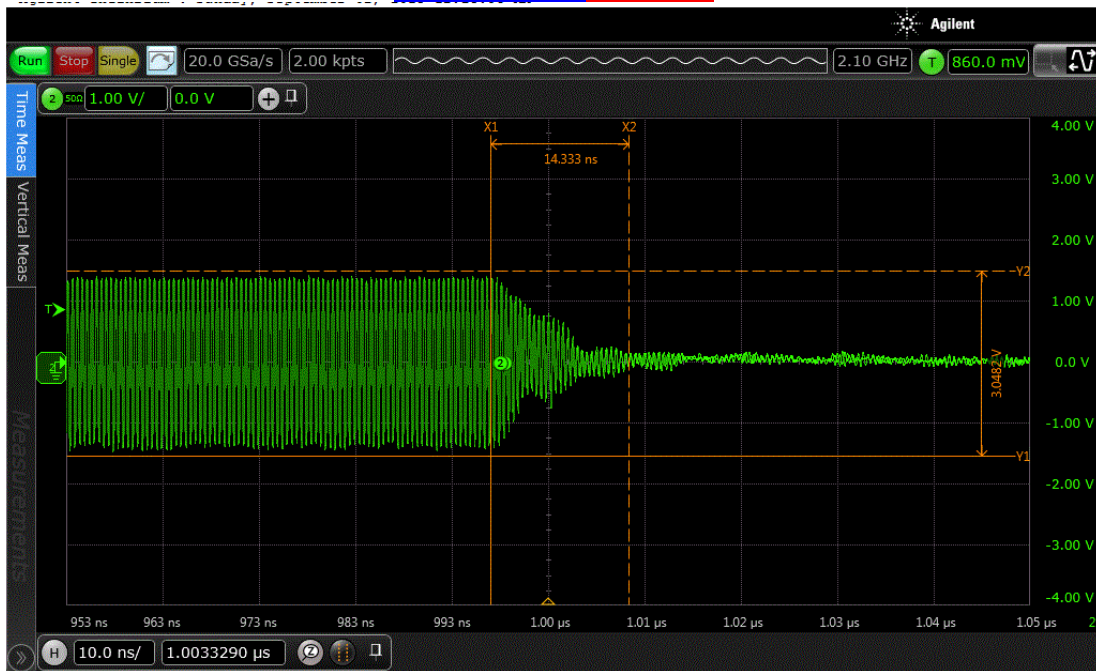


**TYPICAL CHARACTERISTICS
ON
LM-20M18G-100W-15DBM-ROHS**

Recovery (1GHz)
Pulsed RF Input 100W PW 1us - PRF 1KHz - DC 0.1%
10ns Per Div. (10.68 ns)



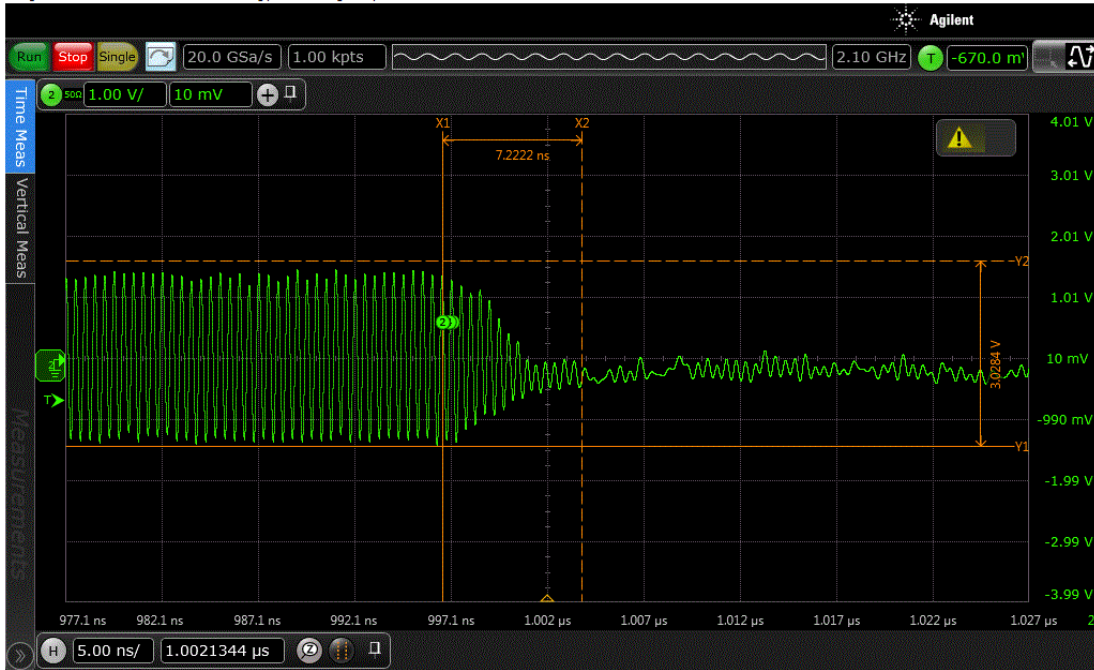
Recovery (1GHz)
Pulsed RF Input 100W PW 40us - PRF 2.5KHz - DC 10%
10ns Per Div. (14.33ns)



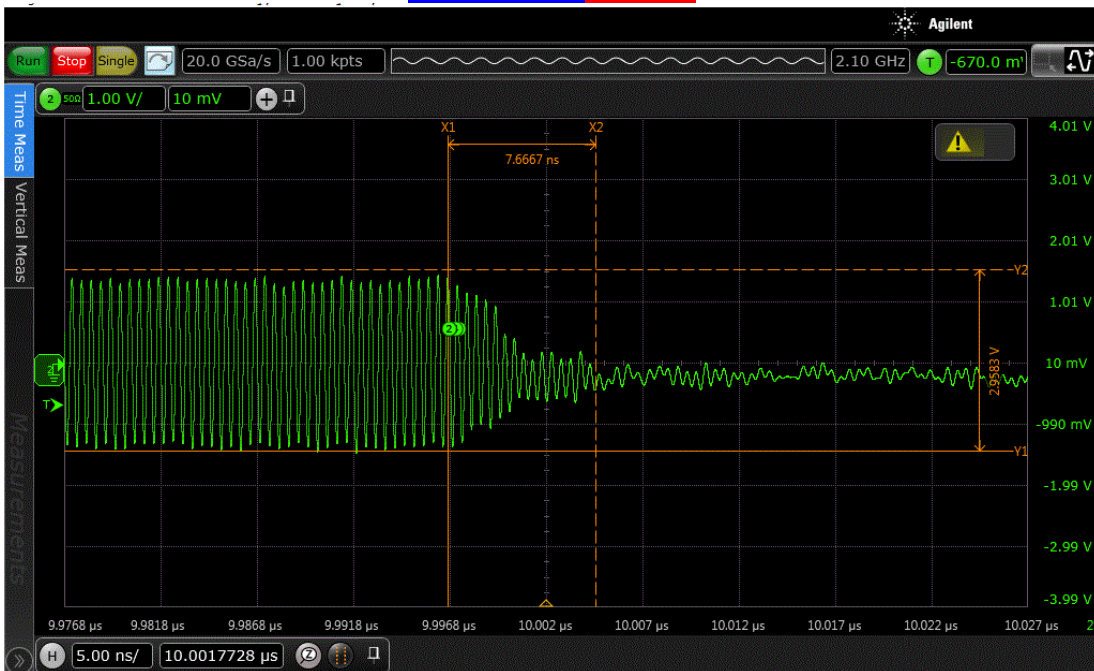


**TYPICAL CHARACTERISTICS
ON
LM-20M18G-100W-15DBM-ROHS**

**Recovery (2GHz)
Pulsed RF Input 10W PW 1us - PRF 10KHz – DC 1%
5ns Per Div. (7.22ns)**



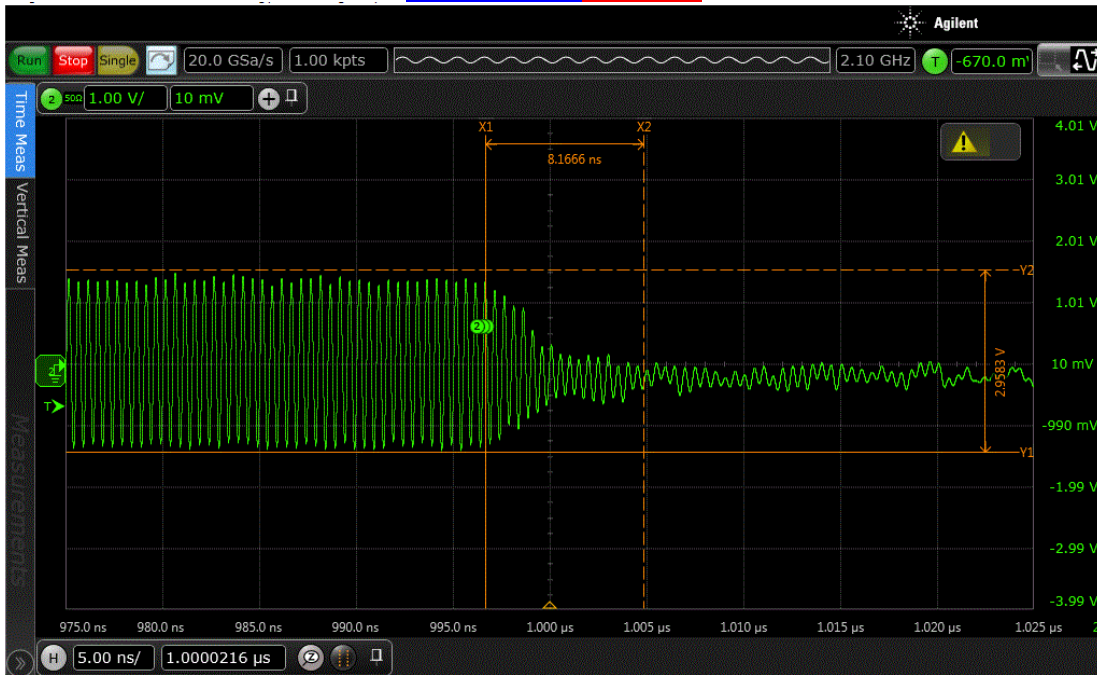
**Recovery (2GHz)
Pulsed RF Input 100W PW 10us - PRF 100Hz – DC 0.1%
5ns Per Div. (7.66ns)**





**TYPICAL CHARACTERISTICS
ON
LM-20M18G-100W-15DBM-ROHS**

Recovery (2GHz)
Pulsed RF Input 100W PW 1us - PRF 1KHz - DC 0.1%
5ns Per Div. (8.17 ns)



Recovery (2GHz)
Pulsed RF Input 100W PW 40us - PRF 2.5KHz - DC 10%
5ns Per Div. (9.33ns)

