



## Certificate of Calibration

Customer Address: RENTAL UNIT

CERT # 1809041B

Product: EFT Burst Generator  
 Manufacturer: Teseq  
 Model #: NSG 3040  
 Serial #: 2047

Notes:

Date of Calibration: 9/4/2018

Next Calibration: \* 9/4/2019

Model #	Serial #	Description	Due Date
RTE1204	101108	2 GHz Oscilloscope	11/17/2018
TFB 500	EC9541811	50Ω Burst Attenuator	3/27/2019
TFB 1000	EC9691811	1kΩ Burst Attenuator	3/27/2019

The above instrument was tested and found to be within the Manufacturer's specification. The results of the tests performed are held on file at ESDGuns.com; see the comments below. The Calibration was carried out in accordance with the general requirements of IEC 61000-4-4 using laboratory standards which are traceable to the National Institute of Standards and Technology (NIST) except where none exist. Tests are carried out in environmental conditions controlled to the extent appropriate to the instrument's specification.

**Ambient Conditions of Laboratory:**

**Temperature: 76°F ± 2°F**

**Relative Humidity: 42%**

Technician: Robert Young

Technician Signature: \_\_\_\_\_



## Burst Generator

### High Voltage Output at 50R Load:

Upeak Tolerance:  $\pm 10\%$  of 0.5 x Level

Rise Time Tolerance: 3.5-6.5 ns

Pulse Duration Tolerance: 35-65ns

Level	Upeak	Error	Rise Time	Pulse Duration	Verdict
250V	121.5V	2.80%	4.30ns	50.6ns	PASS
500V	246.0V	1.60%	4.45ns	49.2ns	PASS
1000V	497.0V	0.60%	4.17ns	47.1ns	PASS
2000V	1004.0V	0.40%	4.19ns	44.0ns	PASS
4000V	2008.0V	0.40%	4.62ns	45.4ns	PASS
-250V	-122.3V	2.16%	4.35ns	49.7ns	PASS
-500V	-248.0V	0.80%	4.32ns	48.8ns	PASS
-1000V	-500.0V	0.00%	4.29ns	46.9ns	PASS
-2000V	-1010.0V	1.00%	4.37ns	44.3ns	PASS
-4000V	-2014.0V	0.70%	4.85ns	44.7ns	PASS

### High Voltage Output at 1000R Load:

Upeak Tolerance:  $\pm 20\%$  of 0.95 x Level

Rise Time Tolerance: 3.5-6.5 ns

Pulse Duration Tolerance: 35-150 ns

Level	Upeak	Error	Rise Time	Pulse Duration	Verdict
250V	240V	1.05%	4.25ns	105.3ns	PASS
500V	487V	2.53%	4.33ns	95.9ns	PASS
1000V	984V	3.58%	4.30ns	84.4ns	PASS
2000V	1973V	3.84%	4.38ns	72.8ns	PASS
4000V	3863V	1.66%	4.91ns	82.1ns	PASS
-250V	-236V	0.63%	4.44ns	107.0ns	PASS
-500V	-458V	3.58%	4.19ns	100.5ns	PASS
-1000V	-932V	1.89%	4.20ns	89.1ns	PASS
-2000V	-1884V	0.84%	4.37ns	81.6ns	PASS
-4000V	-3626V	4.58%	5.05ns	89.4ns	PASS


**CDN outputs at 50R load multiple coupling:**

 Upeak Tolerance:  $\pm 10\%$  of 0.5 x Level

Rise Time Tolerance: 4-7 ns

Pulse Duration Tolerance: 30-60ns

Path	Level	Upeak	Error	Rise Time	Pulse Duration	Verdict
L	4000V	2008V	0.40%	5.21ns	40.7ns	PASS
L	-4000V	-1972V	1.40%	5.57ns	40.9ns	PASS
N	4000V	2014V	0.70%	5.32ns	40.4ns	PASS
N	-4000V	-1978V	1.10%	5.51ns	40.3ns	PASS
PE	4000V	2008V	0.40%	5.29ns	40.7ns	PASS
PE	-4000V	-1966V	1.70%	5.43ns	41.5ns	PASS

**Timing**
**Line 1:** Frequency: 4-6kHz Duration: 12-18ms Period: 240-360ms

**Line 2:** Frequency: 80-120kHz Duration: 0.6-0.9ms Period: 240-360ms

	Level	Frequency	Duration	Period	Verdict
<b>Line 1:</b>	2000V	5.0kHz	14.90ms	297.9ms	PASS
<b>Line 2:</b>	2000V	100.0kHz	0.75ms	297.9ms	PASS

**Residual Voltage**

 50 $\Omega$  Termination

 Must be  $\leq 400V$ 

Level	Residual Upeak L	Residual Upeak N	Verdict
4000V	3.5V	3.0V	PASS