



# RF Exposure Evaluation Report

<b>APPLICANT</b>	NiCOM USA, INC
<b>ADDRESS</b>	1690 CACTUS ROAD SAN DIEGO CA. 92154 USA
<b>FCC ID</b>	RMYNIT600
<b>MODEL NUMBER</b>	NTi600
<b>PRODUCT DESCRIPTION</b>	FM BROADCAST TRANSMITTER
<b>DATE SAMPLE RECEIVED</b>	12/31/2018
<b>FINAL TEST DATE</b>	1/14/2018
<b>PREPARED BY</b>	Tim Royer
<b>TEST RESULTS</b>	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL

Report Number	Report Version	Description	Issue Date
2248UT18 MPE_TestReport_	Rev1	Initial Issue	10/15/2019
	Rev2	Updated page 3, and calculations	3/12/2020

**THE ATTACHED REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN APPROVAL OF TIMCO ENGINEERING, INC.**

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## GENERAL REMARKS

### Summary

The device under test does:

- ☒ Fulfill the general approval requirements as identified in this test report and was selected by the customer.
- ☐ Not fulfill the general approval requirements as identified in this test report

### Attestations

This equipment has been tested in accordance with the standards identified in this test report. To the best of my knowledge and belief, these tests were performed using the measurement procedures described in this report.

All instrumentation and accessories used to test products for compliance to the indicated standards are calibrated regularly in accordance with ISO 17025 requirements.

I attest that the necessary measurements were made at:

**Timco Engineering Inc.**  
**849 NW State Road 45**  
**Newberry, FL 32669**  
**Designation #: US1070**

### Prepared by:

A blue ink signature is written over a circular purple stamp. The stamp contains the text "TIMCO ENGINEERING, INC." around the perimeter and "US1070" in the center.

<b>Name and Title</b>	Tim Royer, Project Manager / EMC Testing Engineer
<b>Date</b>	10/15/2019

## GENERAL INFORMATION

<b>EUT Description</b>	FM BROADCAST TRANSMITTER		
<b>Model Number</b>	NTi600		
<b>EUT Power Source</b>	<input checked="" type="checkbox"/> 110–250Vac, 50–60Hz	<input type="checkbox"/> DC Power	<input type="checkbox"/> Battery Operated
<b>Test Item</b>	<input type="checkbox"/> Engineering Prototype	<input checked="" type="checkbox"/> Pre-Production	<input type="checkbox"/> Production
<b>Type of Equipment</b>	<input checked="" type="checkbox"/> Fixed	<input type="checkbox"/> Mobile	<input type="checkbox"/> Portable
<b>Antenna Connector</b>	external N Type		
<b>Test Conditions</b>	The temperature was 26°C Relative humidity of 50%.		
<b>Modification to the EUT</b>	No Modification to EUT.		
<b>Applicable Standards</b>	FCC CFR 47 Part 2.1091		
<b>Test Facility</b>	Timco Engineering Inc. at 849 NW State Road 45 Newberry, FL 32669 USA. Designation #: US1070		

## ANTENNA INFORMATION

<b>Manufacturer Provides Antenna</b>	<b>Type</b>	<b>Max Gain (dBi)</b>
No	Unspecified	0 dBi

## POWER OUTPUT OF EUT

<b>Frequency (MHz)</b>	<b>Rated Output Power (W)</b>
88	586

## MPE CALCULATION

The minimum separation distance is calculated as follows:

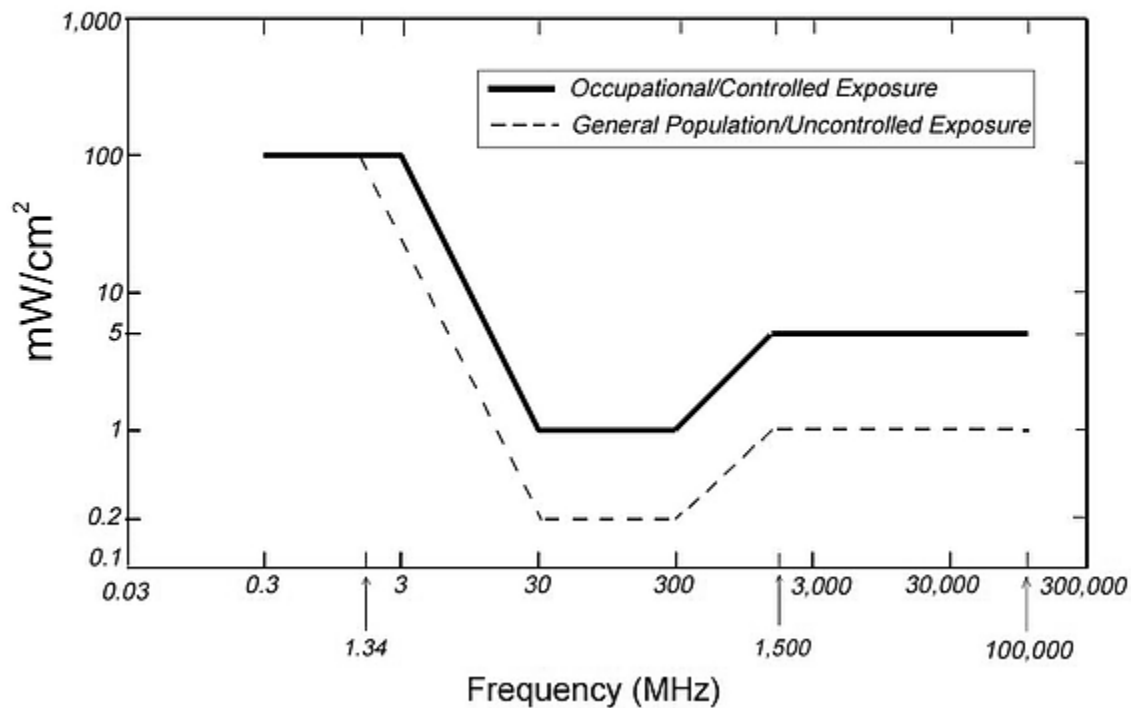
$$E(V/m) = \frac{\sqrt{30 \times P \times G}}{d}$$

$$\text{Power density: } P_d(mW/cm^2) = \frac{E^2}{3770}$$

## MPE LIMITS

**Figure 1.** FCC Limits for Maximum Permissible Exposure (MPE)

*Plane-wave Equivalent Power Density*



## MPE Table

### EUT Parameters

Parameter	Value	Unit
EUT Form Factor	Fixed ▼	
Lowest Frequency	88.000	MHz
Highest Frequency	108.000	MHz
Maximum Power	57.780	dBm ▼
Tune Up Tolerance	1.000	+/- dBm ▼
Duty Cycle	100%	%
Antenna Gain	0.000	dBi EIRP ▼
Coax Loss	0.000	dB ▼
EIRP	755.092	W

### Uncontrolled Public RF Exposure/MPE Guideline

Separation Distance (cm)	548.1 cm
Power Density (mW/cm <sup>2</sup> )	0.2 mW/cm <sup>2</sup>

### Controlled Occupational RF Exposure/MPE Guideline

Separation Distance (cm)	245 cm
Power Density (mW/cm <sup>2</sup> )	1 mW/cm <sup>2</sup>