Table I. High Power RF Termination Performance Requirements

Parameter	Units	Specification	Notes
Passband Frequency Range	MHz	DC to 2300	(see Note 1)
Duty Cycle		Continuous	
RF Input Power (operational) • Average • Peak • Multi-carrier • Average	 Watts Watts # @ Watts	 150 max. 1000 max. 4 @ 37.5	(See Note 4). RF input power handling shall be tested at the maximum baseplate temperature of +85 °C.
RF Input / Output Impedance	Ohms	50	Nominal
RF Input VSWR (passband)		1.15:1 max.	(See Note 4)
Carrier Frequency Separation Range • Minimum • Maximum	 kHz MHz	 30 60.0	
Passive Intermodulation Distortion • Wideband • Transmit Band (1930 to 1990 MHz) • PCS Receive Band (1850 to 1910 MHz)	 dBc dBc dBc	 -123.0 max. -123.0 max. -143.0 max.	(see Note 2)
RF Shielding Effectiveness	dB	90 min.	(see Note 3)
Connector Interface		Type N (f)	
Connector Material / Plating			All connector surfaces shall have a corrosion inhibiting finish. Low PIM plating. (see Note 6)
Marking			Marking shall be IAW Figure 1. NOTE: Figure 1 not supplied. (see Note 5)
Corrosion Resistance		Yes	Chemically coat IAW B-449, Class 1.

NOTES for Table I:

1. It is desirable that a single unit operate over the passband frequency range of DC to 2300 MHz . The passband frequency range may be narrowed to 1850 to 1990 MHz to optimize performance or significantly reduce cost.
2. Passive intermodulation distortion shall be measured utilizing a mutually acceptable industry standard (two tones at +43 dBm). Carrier frequency separation shall be varied from minimum to maximum. The reflected intermodulation products shall be measured at the RF connector. The intermodulation products shall be measured relative to the individual carrier power levels input to the RF connector.
3. RF shielding effectiveness shall be measured with a quarter-wave stub positioned 1.0 cm from the unit at any location. RF shielding shall be measured over the operational frequency range. The level of RF shielding shall be relative the RF input power present at the RF connector. RF shielding shall be measured with the maximum RF input power level present at the RF connectors.
4. Power handling shall be tested at maximum temperature and maximum altitude. Crest factor of TDMA-modulated carrier shall be 4 dB. Unit shall be able to handle the instantaneous peak power levels created by 4 TDMA carriers applied simultaneously, at 37.5W/carrier average power.
5. Appropriate safety labels shall be affixed to the unit in accordance with UL-1950. A “thermal hazard” label shall be affixed to the unit.
6. Silver-plated stainless steel connectors shall be acceptable for low PIM plating.

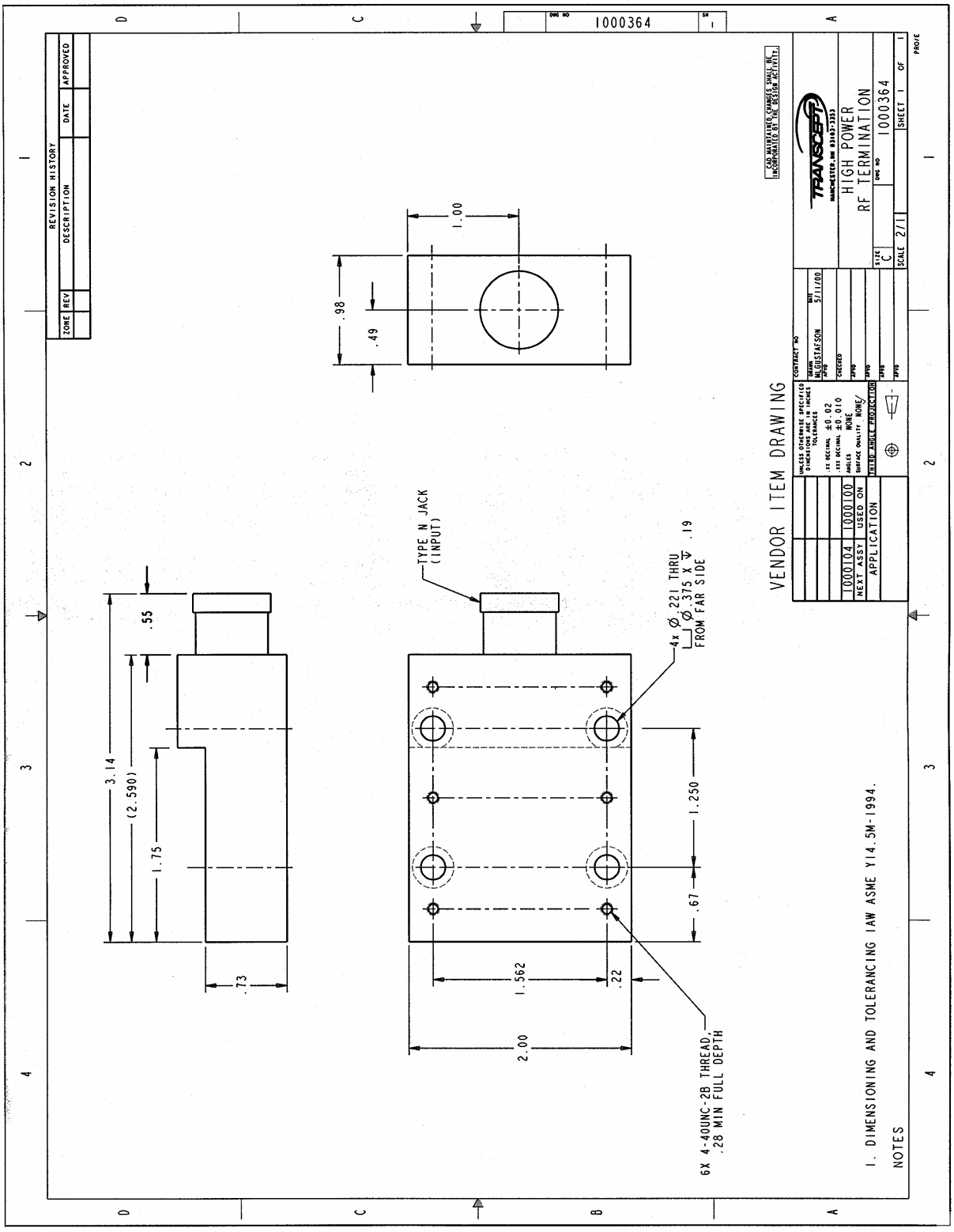

Figure 1. Low Power RF Assembly Outline Drawing

SIZE		DWG NO	REV
A		1000364	D
SCALE			SHEET
NONE			10 of 11

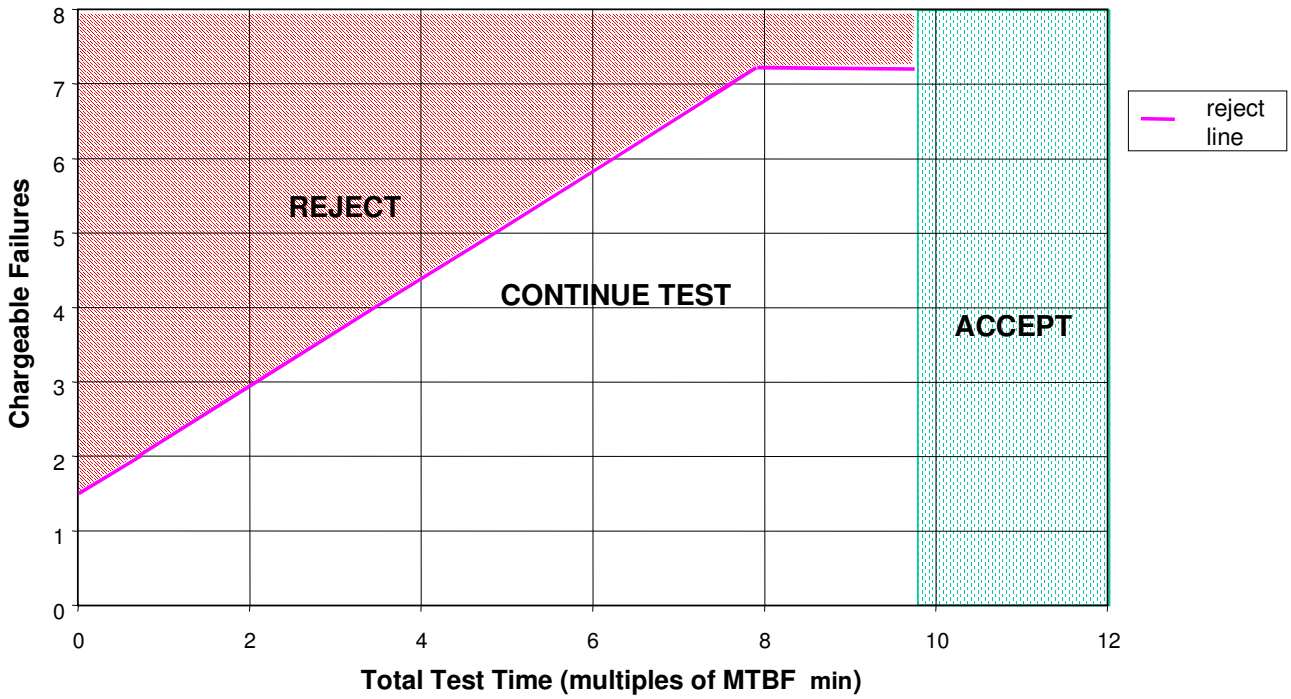

Figure 2. Field Reliability MTBF Test

Table II. Accept-Reject Criteria for Field Reliability

Chargeable Failures	Decide at t ≥
0	n/a
1	n/a
2	0.7
3	2.08
4	3.46
5	4.86
6	6.24
7	7.62
8	9.74