INCH-POUND

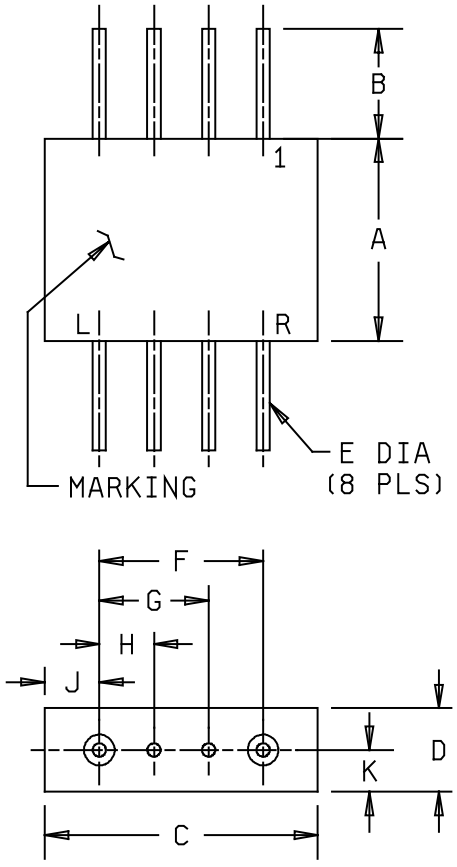
MIL-DTL-28837/2D
5 July 2012
SUPERSEDING
MIL-DTL-28837/2C
30 October 2001

DETAIL SPECIFICATION SHEET

MIXER STAGES, RADIO FREQUENCY, DOUBLE BALANCED, SOLDER LEADS

This specification is approved for use by all Departments and Agencies of the Department of Defense.

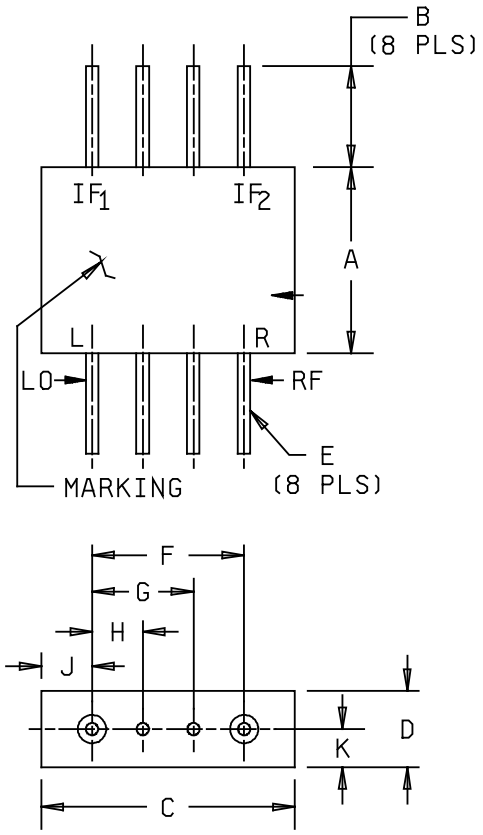
The requirements for acquiring the product described herein shall consist of this specification and MIL-DTL-28837.



Ltr	Dimension			
	Inches		mm	
	Min	Max	Min	Max
A	.365	.405	9.27	10.29
B	.313	---	7.95	---
C	.49	.53	12.4	13.5
D	---	.150	---	3.81
E	.012 DIA	.022 DIA	0.30 DIA	0.59 DIA
F	.340	.360	8.64	9.14
G	.240	.260	6.10	6.60
H	.090	.110	2.29	2.79
J	.075	.085	1.91	2.16

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Pins not marked are grounded.
4. Pins without internal connections (dummy) are permitted provided the pins are labeled with a "D".

FIGURE 1. Outline drawing for mixers PIN M28837/2-01, M28837/2-02, M28837/2-03, M28837/02-04, M28837/2-07, M28837/2-08, M28837/2-09 and M28837/2-10.



Ltr	Dimension			
	Inches		mm	
	Min	Max	Min	Max
A	.365	.405	9.27	10.29
B	.313	---	7.95	---
C	.49	.53	12.4	13.5
D	---	.150	---	3.81
E	.012 DIA	.022 DIA	0.30 DIA	0.59 DIA
F	.340	.360	8.64	9.14
G	.240	.260	6.10	6.60
H	.090	.110	2.29	2.79
J	.075	.085	1.91	2.16
K	.075 NOM		1.91 NOM	

NOTES:
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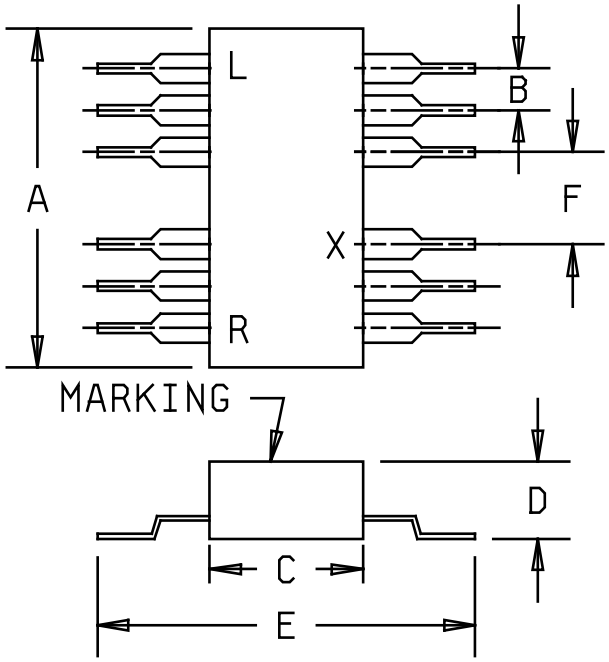
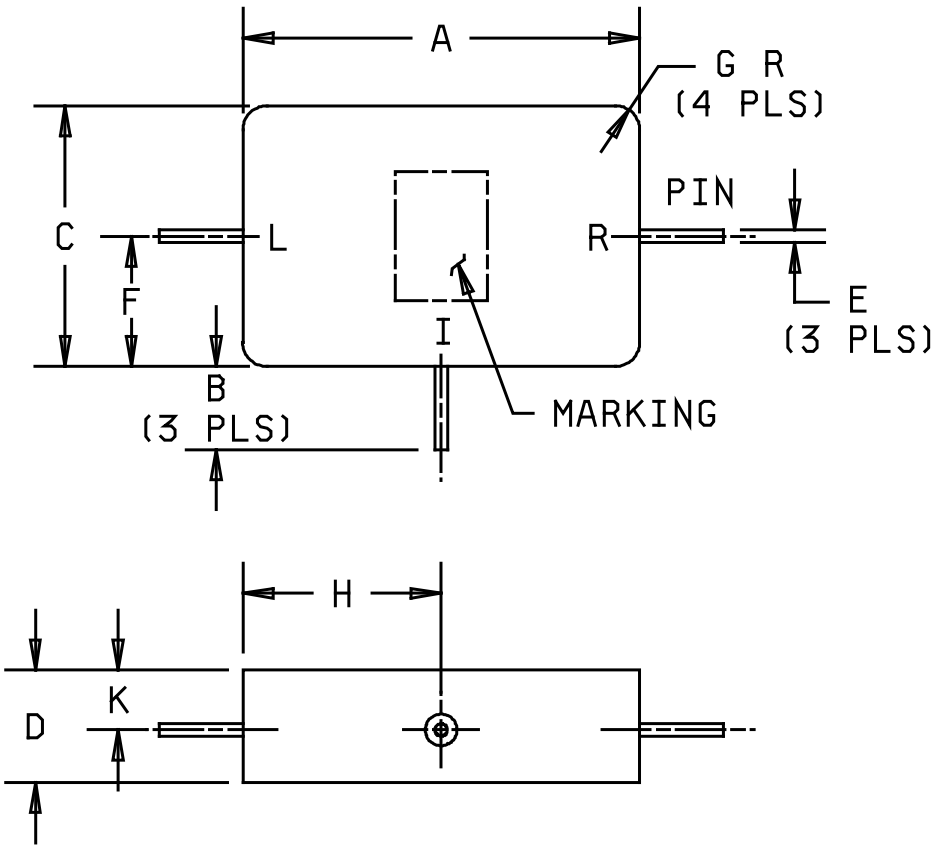
FIGURE 2. Outline drawing for mixers PIN M28837/2-05.



Dimension				
Ltr	Inches		mm	
	Min	Max	Min	Max
A	.868	.872	22.05	22.15
B	.098	.102	2.49	2.59
C	.568	.572	14.43	14.53
D	.253	.257	6.43	6.53
E	.998	1.002	25.35	25.45
F	.298	.302	7.57	7.67

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Pins not marked are grounded.
4. Pins without internal connections (dummy) are permitted provided the pins are labeled with a "D".

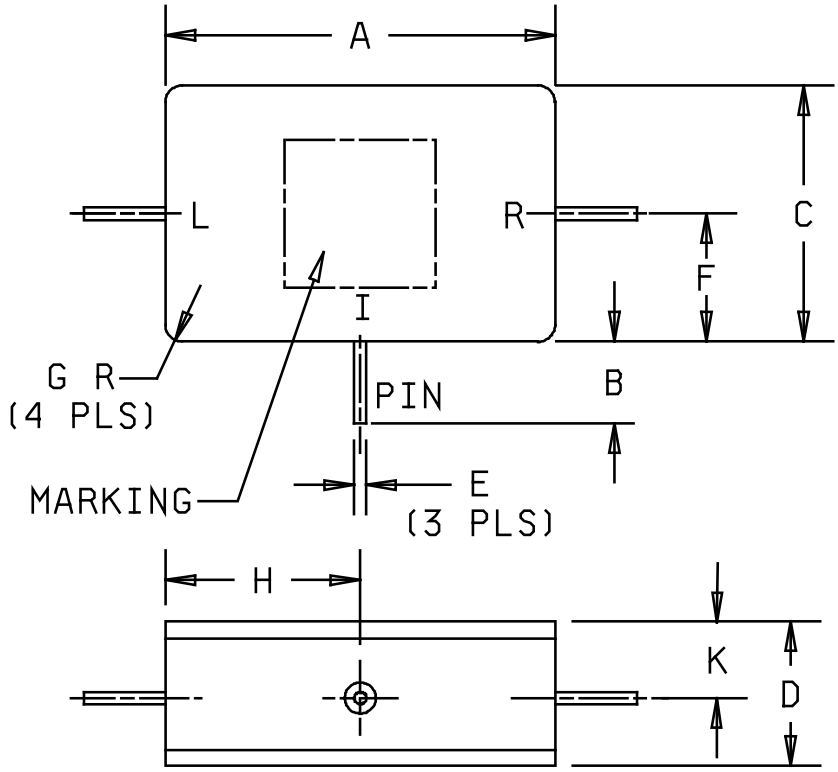
FIGURE 3. Outline drawing for mixers PIN M28837/2-06.



Ltr	Dimension			
	Inches		mm	
	Min	Max	Min	Max
A	.790	.810	20.07	20.57
B	.175	.215	4.45	5.46
C	.580	.600	14.73	15.24
D	.250	.270	6.35	6.86
E	.017 DIA	.019 DIA	0.43 DIA	0.48 DIA
F	.285	.305	7.24	7.75
G	.057 RAD	.067 RAD	1.45 RAD	1.70 RAD
H	.390	.410	9.91	10.41
K	.120	.140	3.05	3.56

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Case is to be grounded.

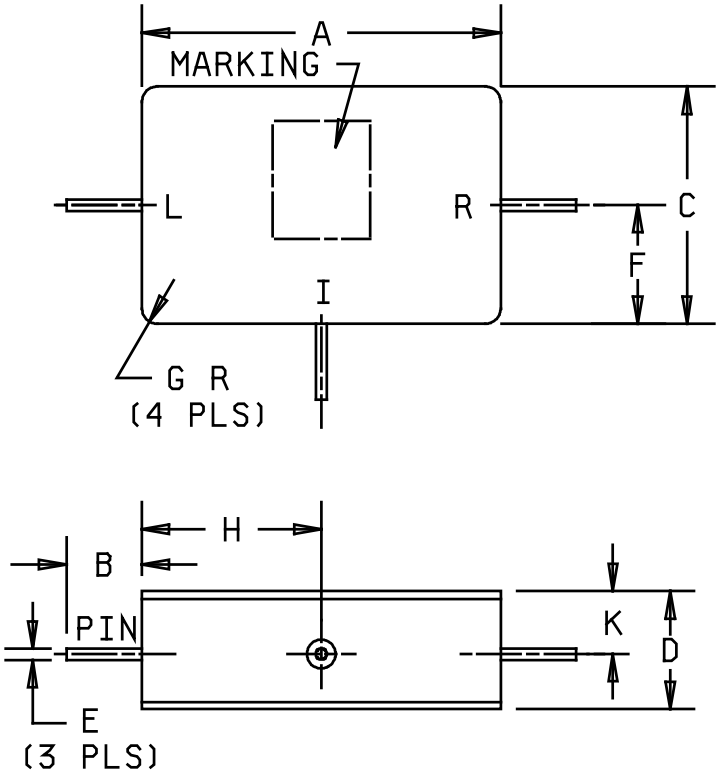
FIGURE 4. Outline drawing for mixers PIN M28837/2-14 through M28837/2-16.



Dimension				
Ltr	Inches		mm	
	Min	Max	Min	Max
A	1.090	1.110	27.69	28.19
B	.175	.215	4.45	5.46
C	.730	.750	18.54	19.05
D	.180	.200	4.57	5.08
E	.017 DIA	.019 DIA	0.43 DIA	0.48 DIA
F	.369	.371	9.37	9.42
G	.057 RAD	.067 RAD	1.45 RAD	1.70 RAD
H	.540	.560	13.72	14.22
K	.085	.205	2.16	5.21

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Case is to be grounded.

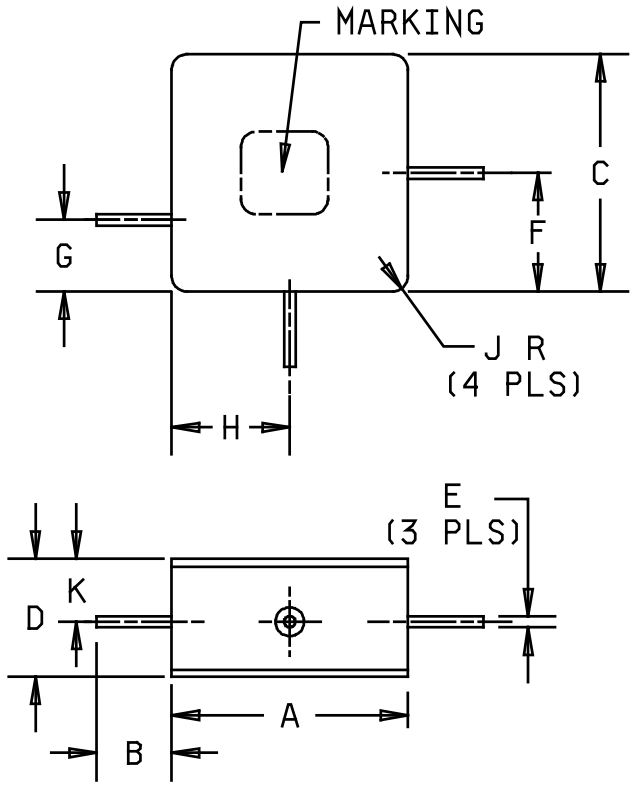
FIGURE 5. Outline drawing for mixers PIN M28837/2-11.



Ltr	Dimension			
	Inches		mm	
	Min	Max	Min	Max
A	.790	.810	20.07	20.57
B	.175	.215	4.45	5.46
C	.580	.600	14.73	15.24
D	.180	.200	4.57	5.08
E	.017 DIA	.019 DIA	0.43 DIA	0.48 DIA
F	.285	.305	7.24	7.75
G	.057 RAD	.067 RAD	1.45 RAD	1.70 RAD
H	.395	.405	10.03	10.29
K	.085	.105	2.16	2.68

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Case is to be grounded.

FIGURE 6. Outline drawing for mixers PIN M28837/2-12.



Dimension				
Ltr	Inches		mm	
	Min	Max	Min	Max
A	.550	.570	13.97	14.48
B	.175	.215	4.45	5.46
C	.510	.530	12.95	13.46
D	.180	.200	4.57	5.08
E	.017 DIA	.019 DIA	0.43 DIA	0.48 DIA
F	.271	.291	6.88	7.39
G	.200	.220	5.08	5.59
H	.270	.290	6.86	7.37
J	.057 RAD	.067 RAD	1.45 RAD	1.70 RAD
K	.085	.105	2.16	2.67

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Case is to be grounded.

FIGURE 7. Outline drawing for mixers PIN M28837/2-13.

REQUIREMENTS:

Design and construction:

Dimensions and configuration: See figures 1 through 7.

Electrical characteristics:

Operating frequency range: See table I.

LO drive power: See table I.

Conversion loss (max): See table I.

Noise figure (SSB): See table I.

Isolation (minimum): See table I.

Maximum input power: See table I.

Conversion compression: See table I.

Desensitization (max): See table I.

DC relative polarity: See table I.

VSWR: See table I.

Third order, two tone intermodulation: See table I.

Impedance: 50 ohms.

Physical and environmental characteristics:

Weight: See table II.

Temperature: See table II.

Mechanical shock: See table II.

Hermetic seal: See table II.

Terminal strength: See table II.

Life: See table II.

Part or Identifying Number (PIN)
Space flight mixers shall be marked with “T”, M28837/2- 01 T.

TABLE I. Electrical characteristics. 1/

Dash no.	Operating frequency range	LO input drive power in dBm 2/	Maximum conversion loss (SSB) dB	Noise figure (SSB) dB	Isolation			
					Minimum			Frequency
					LO-RF dB	LO-IF dB	RF-IF dB	
01N 01S	MHz RF 5-1,000 LO 5-1,000 IF DC-1,000	minimum +10 TV +10 maximum +17	8.0 at: f_L and f_R 5-1,000 MHz f_I DC-1,000 MHz	Within 1 dB of conversion loss	40	40	30	5-100 MHz
					30	25	15	100-1,000 MHz
02N 02S	MHz RF 10-1,500 LO 10-1,500 IF DC-1,000	minimum +4 TV +7 maximum +13	7.0 at: f_R 20-600 MHz f_L 10-800 MHz f_I DC-200 MHz	7.0 at: f_R 20-600 MHz f_L 10-800 MHz f_I 0.4-200 MHz	30	30	N/A	10-600 MHz
			8.0 at: f_R 10-1,200 MHz f_L 10-1,400 MHz f_I DC-200 MHz	8.0 at: f_R 10-1,200 MHz f_L 10-1,400 MHz f_I 0.4-200 MHz	25	20	N/A	600-1,200 MHz
			f_R 10-1,500 MHz f_L 10-15,000 MHz 8.5 at: f_I DC-200 MHz 9.5 at: f_I DC-1,000 MHz	f_R 10-1,500 MHz f_L 10-15,000 MHz 8.5 at: f_I 0.4-200 MHz 9.5 at: f_I 0.4-1,000 MHz	25	18	N/A	1,200-1,500 MHz
03N 03S	GHz RF 0.6-2.0 LO 0.6-2.0 IF DC-1.0	minimum +4 TV +7 maximum +13	9.0 at: f_R and f_L 0.6-2.0 GHz f_I DC-1.0 GHz	Within 1 dB of conversion loss	25	23	25	0.6-1.0 GHz
			7.5 at: f_R and f_L 1.0-2.0 GHz f_I DC-1.0 GHz		20	12	15	1.0-2.0 GHz

See footnotes at end of table.

TABLE I. Electrical characteristics - Continued. 1/

Dash no.	RF and LO 6/ maximum power input (rms)	Conversion compression (maximum)	Desensitization (maximum)	Relative dc polarity 7/	VSWR (maximum)			Third order, two tone intermodulation	
					LO	IF	RF	dBm	Frequencies
01N 01S	50 mW	N/A	N/A	Positive	---	---	---	---	
02N 02S	140 mW	1.0 dB at P_R 0 dBm	1.0 dB at P_R -2 dBm	Negative	---	---	---	+10	
03N 03S	300 mW	1.0 dB at P_R 0 dBm	1.0 dB at P_R 0 dBm	Positive	2.5:1	2.5:1	2.5:1	36 8/	f_{L0}: 35 MHz f_{R1}: 25 MHz at -10 dBm f_{R2}: 25 MHz at -10 dBm

See footnotes at end of table.

TABLE I. Physical and environmental characteristics - Continued. 1/

Dash no.	Operating frequency range	LO input drive power in dBm 2/	Maximum conversion loss (SSB) dB	Noise figure (SSB) dB	Isolation Minimum LO-RF dB	Isolation Minimum LO-IF dB	Isolation Minimum RF-IF dB	Isolation Frequency
04N 04S	MHz RF 0.5-500 LO 0.5-500 IF DC-500	minimum +7 TV +7 maximum +17	7.0 at: f_L and f_R 1-300 MHz f_I DC-300 MHz	Within 1 dB of conversion loss	40	30	23	0.5-300 MHz
			8.0 at: f_L and f_R 0.5-500 MHz f_I DC-500 MHz		35	20	20	0.5-500 MHz
05N 05S	MHz RF 0.5-500 LO 0.5-500 IF_1 and IF_2 DC-500	minimum +7 TV +7 maximum +13 3/	7.0 at: RF port to IF_1 .5-500 MHz 4/	Within 1 dB of conversion loss	35	30	25	0.5-10 MHz
			7.0 at: LO port to IF_1 .5-500 MHz 5/		30	25	20	10-200 MHz
					25	20	15	200-500 MHz
06N 06S	MHz RF 0.5-400 LO 0.5-600 IF DC-600	minimum +7 TV +7 maximum +17	6.5 at: f_L and f_R 1-100 MHz f_I DC-100 MHz	6.5 at: f_L and f_R 1-100 MHz f_I DC-100 MHz	45	30	20	1-100 MHz
			8.0 at: f_L and f_R 0.5-400 MHz f_I DC-1.0 MHz	8.0 at: f_L and f_R 0.5-400 MHz f_I DC-400 MHz	35	25	10	.5-400 MHz

See footnotes at end of table.

TABLE I. Electrical characteristics - Continued. 1/

Dash no.	RF and LO 6/ maximum power input (rms)	Conversion compression (maximum)	Desensitization (maximum)	Relative dc polarity 7/	VSWR (maximum)			Third order, two tone intermodulation	
					LO	IF	RF	dBm	Frequencies
04N 04S	210 mW	1.0 dB at P_R 0-3 dBm	N/A	Positive	---	---	---	---	
05N 05S	280 mW	1.0 dB at P_R +1 dBm	1.0 dB at P_{R2} -3 dBm	Negative	---	---	---	---	
06N 06S	140 mW	8.0 dB at P_L +17 dBm	N/A	Negative	---	---	---	---	

See footnotes at end of table.

TABLE I. Physical and environmental characteristics - Continued. 1/

Dash no.	Operating frequency range	LO input drive power in dBm 2/	Maximum conversion loss (SSB) dB	Noise figure (SSB) dB	Isolation			
					Minimum			Frequency
					LO-RF dB	LO-IF dB	RF-IF dB	
07N 07S	GHz RF 0.5-1.0 LO 0.5-1.0 IF DC-1.0	minimum +4 TV +7 maximum +13 7/	7.5 at: f_L and f_R 5-500 MHz f_I DC-500 MHz	Within 1 dB of conversion loss	35	30	25	5-50 MHz
			8.0 at: f_L and f_R 500-1,000 MHz f_I DC-1,000 MHz		30	25	20	50-500 MHz
					25	20	15	500-1,000 MHz
08N 08S	GHz RF 0.75-2.0 LO 0.5-2.0 IF DC-1.2	minimum -3 TV 0 maximum +5	7.0 at: f_L and f_R 500-1,000 MHz f_I DC-1,000 MHz	Within 1 dB of conversion loss	35	27	21	500-1,000 MHz
			10.0 at: f_L and f_R 1,000-2,000 MHz f_I DC-1,200 MHz		27	24	17	1,000-2,000 MHz
09N 09S	MHz RF 1-3,500 LO 1-3,500 IF 5-2,500	minimum +7 TV +10 maximum +24	7.0 at: f_L and f_R 5-1,000 MHz f_I DC-1,000 MHz	Within 1 dB of conversion loss	30	30	30	5-1,000 MHz
			9.5 at: f_L and f_R 1-3,500 MHz f_I DC-2,500 MHz		20	20	18	1-3,500 MHz

See footnotes at end of table.

TABLE I. Electrical characteristics - Continued. 1/

Dash no.	RF and LO 6/ maximum power input (rms)	Conversion compression (maximum)	Desensitization (maximum)	Relative dc polarity 7/	VSWR (maximum)			Third order, two tone intermodulation	
					LO	IF	RF	dBm	Frequencies
07N 07S	300 mW	1.0 dB at P_R 0 dBm	1.0 dB at P_{R2} -2 dBm	Negative	3.0:1	2.5:1	3.0:1	+48	f_{L0}: 20 MHz f_{R1} and f_{R2}: 250 MHz at -10 dBm
								+41 8/	f_{L0}: 20 MHz at +7 dBm f_{R1} and f_{R2}: 750 MHz at -10 dBm
08N 08S	200 mW	1.0 dB at P_R -8 dBm	1.0 dB at P_R -10 dBm	Negative	3.5:1	---	2.5:1	+7 8/	f_{L0}: 50 MHz f_{R1} and f_{R2}: 1,000 MHz at -10 dBm
09N 09S	300 mW	1.0 dB at P_R +7 dBm	1.0 dB at P_R +5 dBm	Negative	2.0:1	1.5:1	2.5:1	+55 8/	f_{L0}: 60 MHz f_{R1} and f_{R2}: 10 MHz at -10 dBm
								+56	f_{L0}: 60 MHz f_{R1} and f_{R2}: 3,000 MHz at -10 dBm

See footnotes at end of table.

TABLE I. Physical and environmental characteristics - Continued. 1/

Dash no.	Operating frequency range	LO input drive power in dBm 2/	Maximum conversion loss (SSB) dB	Noise figure (SSB) dB	Isolation Minimum LO-RF dB	Isolation Minimum LO-IF dB	Isolation Minimum RF-IF dB	Isolation Frequency
10N 10S	GHz RF 0.8-2.4 LO 0.8-3.5 IF DC-1.5	minimum +4 TV +7 maximum +13	8.0 at: f_R 1.0-2.0 GHz f_L 0.8-3.5 GHz f_I 0.01-1.5 GHz	8.0 at: f_R 1.0-2.0 GHz f_L 0.8-3.5 GHz f_I 0.01-1.5 GHz	25	18	20	0.8-2.0 GHz
			8.5 at: f_R 0.8-2.4 GHz f_L 0.8-3.5 GHz f_I 0.01-1.5 GHz	8.5 at: f_R 0.8-2.4 GHz f_L 0.8-3.5 GHz f_I 0.01-1.5 GHz	20	20	20	2.0-3.5 GHz
11N 11S	GHz RF 2.5-5.5 LO 2.5-7.0 IF DC-1.5	minimum +7 TV +9 maximum +13	6.5 at: f_L 3-5.5 GHz f_R 3-5.0 GHz f_I 0.03-0.5 GHz	6.5 at: f_L 3-5.5 GHz f_R 3-5.0 GHz f_I 0.03-0.5 GHz	30	17	20	2.5-7 GHz 2.5-3.5 GHz 3.5-7.0 GHz
			7.0 at: f_L 2.5-7.0 GHz f_R 2.5-5.5 GHz f_I 0.03-1.5 GHz	7.0 at: f_L 2.5-7.0 GHz f_R 2.5-5.5 GHz f_I 0.03-1.5 GHz				
12N 12S	GHz RF 4.5-9.5 LO 2.5-11.5 IF DC-2.0	minimum +7 TV +10 maximum +13	7.0 at: f_R 5-9 GHz f_L 4-10 GHz f_I 0.03-1 GHz	7.0 at: f_R 5-9 GHz f_L 4-10 GHz f_I 0.03-1 GHz	25			2.5-9 GHz
					20			9-11.5 GHz
						15		4-11.5 GHz
			8.0 at: f_R 4.5-9.5 GHz f_L 2.5-11 GHz f_I 0.03-2 GHz	8.0 at: f_R 4.5-9.5 GHz f_L 2.5-11 GHz f_I 0.03-2 GHz		10		2.5-4 GHz
							15	4.5-8.0 GHz
							18	8-9.5 GHz

See footnotes at end of table.

TABLE I. Electrical characteristics - Continued. 1/

Dash no.	RF and LO 6/ maximum power input (rms)	Conversion compression (maximum)	Desensitization (maximum)	Relative dc polarity 7/	VSWR (maximum)			Third order, two tone intermodulation	
					LO	IF	RF	dBm	Frequencies
10N 10S	200 mW	1.0 dB at P_R 0 dBm	1.0 dB at P_{R2} -2 dBm	Negative	2.0:1	2.5:1	3.0:1	+12 8/	f_{L0}: 3.5 GHz f_{R1}: 2.5 GHz at -10 dBm f_{R2}: 2.51 GHz at -10 dBm
11N 11S	200 mW	1.0 dB at P_R +3 dBm	1.0 dB at P_{R2} -2 dBm	Positive	2.5:1	2.5:1	3.3:1	11 8/	f_{L0}: 5.0 GHz f_{R1}: 4.0 GHz at -10 dBm f_{R2}: 4.01 GHz at -10 dBm
12N 12S	200 mW	1.0 dB at P_R +3 dBm	1.0 dB at P_{R2} -2 dBm	Positive	2.1:1	3.5:1	2.2:1	+13 8/	f_{L0}: 8 GHz f_{R1}: 7 GHz at -6 dBm f_{R2}: 7.01 GHz at -6 dBm

See footnotes at end of table.

TABLE I. Physical and environmental characteristics - Continued. 1/

Dash no.	Operating frequency range	LO input drive power in dBm 2/	Maximum conversion loss (SSB) dB	Noise figure (SSB) dB	Isolation Minimum LO-RF dB	Isolation Minimum LO-IF dB	Isolation Minimum RF-IF dB	Isolation Frequency
13N 13S	GHz RF 7-18 LO 5-18 IF DC-3	minimum +7 TV +10 maximum +13	8.0 at: f_R 8-16 GHz f_L 5-18 GHz f_I 0.03-3 GHz $f_L > f_R$	8.0 at: f_R 8-16 GHz f_L 5-18 GHz f_I 0.03-3 GHz	22			5-14 GHz
					15			14-18 GHz
			8.5 at: f_R 8-16 GHz f_L 5-16 GHz f_I 0.03-3 GHz $f_L < f_R$	8.5 at: f_R 8-16 GHz f_L 5-16 GHz f_I 0.03-3 GHz		12		5-8 GHz
						22		8-18 GHz
			9.0 at: f_R 16-18 GHz f_L 13-18 GHz f_I 0.03-3 GHz	9.0 at: f_R 16-18 GHz f_L 13-18 GHz f_I DC-3 GHz			23	0.03-8 GHz
							15	8-18 GHz
14N 14S	GHz RF 1-18 LO 2-18 IF DC-5	minimum +10 TV +13 maximum +16	8.0 at: f_R 5-13 GHz f_L 5-13 GHz f_I 0.03-2 GHz	8.0 at: f_R 5-13 GHz f_L 5-13 GHz f_I 0.03-2 GHz	18	20		2-18 GHz
							25	1-2 GHz
			9.0 at: f_R 2-16 GHz f_L 2-18 GHz f_I 0.03-4 GHz	9.0 at: f_R 2-16 GHz f_L 2-18 GHz f_I 0.03-4 GHz			28	2-8 GHz
			10.0 at: f_R 1-18 GHz f_L 2-18 GHz f_I 0.03-5 GHz	10.0 at: f_R 1-18 GHz f_L 2-18 GHz f_I DC-5 GHz				

See footnotes at end of table.

TABLE I. Electrical characteristics - Continued. 1/

Dash no.	RF and LO 6/ maximum power input (rms)	Conversion compression (maximum)	Desensitization (maximum)	Relative dc polarity 7/	VSWR (maximum)			Third order, two tone intermodulation	
					LO	IF	RF	dBm	Frequencies
13N 13S	200 mW	1.0 dB at P_R +4 dBm	1.0 dB at P_{R2} -2 dBm	Positive	2.3:1	3.3:1	3.0:1	+15 8/	f_{L0}: 14 GHz f_{R1}: 13 GHz at -6 dBm f_{R2}: 13.01 GHz at -6 dBm
14N 14S	400 mW	1.0 dB at P_R +6 dBm	1.0 dB at P_R -2 dBm	Positive	3.0:1	2.0:1	3.5:1	+18 8/	f_{L0}: 8 GHz f_{R1}: 6 GHz at -3 dBm f_{R2}: 6.01 GHz at -3 dBm
								+19 8/	f_{L0}: 18 GHz f_{R1}: 15 GHz at -3 dBm f_{R2}: 15.01 GHz at -3 dBm

See footnotes at end of table.

TABLE I. Physical and environmental characteristics - Continued. 1/

Dash no.	Operating frequency range	LO input drive power in dBm 2/	Maximum conversion loss (SSB) dB	Noise figure (SSB) dB	Isolation Minimum LO-RF dB	Isolation Minimum LO-IF dB	Isolation Minimum RF-IF dB	Isolation Frequency
15N 15S	GHz RF 2-18 LO 2-18 IF 1-8	minimum +10 TV +13 maximum +16	10.0 at: f_R 2-10 GHz f_L 2-18 GHz f_I 1-18 GHz	10.0 at: f_R 2-10 GHz f_L 2-18 GHz f_I 1-18 GHz	15	16	20	2-18 GHz
			10.5 at: f_R 10-18 GHz f_L 10-18 GHz f_I 2-8 GHz	10.5 at: f_R 10-18 GHz f_L 10-18 GHz f_I 2-8 GHz				
			11.0 at: f_R 10-18 GHz f_L 2-10 GHz f_I 1-8 GHz	11.0 at: f_R 10-18 GHz f_L 2-10 GHz f_I 1-8 GHz				
16N 16S	GHz RF 2-18 LO 2-18 IF DC-4.0	minimum +7 TV +10 maximum +13	10.0 at: f_R 2-10 GHz f_L 2-14 GHz f_I 0.03-4 GHz	10.0 at: f_R 2-10 GHz f_L 2-14 GHz f_I 0.03-4 GHz	15	16	20	2-8 GHz
			11.0 at: f_R 10-18 GHz f_L 6-18 GHz f_I 0.03-4 GHz	11.0 at: f_R 10-18 GHz f_L 6-18 GHz f_I 0.03-4 GHz			15	8-18 GHz

See footnotes at end of table.

TABLE I. Electrical characteristics - Continued. 1/

Dash no.	RF and LO 6/ maximum power input (rms)	Conversion compression (maximum)	Desensitization (maximum)	Relative dc polarity 7/	VSWR (maximum)			Third order, two tone intermodulation	
					LO	IF	RF	dBm	Frequencies
15N 15S	400 mW	1.0 dB at P_R +7 dBm	1.0 dB at P_R -2 dBm	Positive	3.3:1	1.7:1	3.5:1	18.5 8/	f_{L0}: 10 MHz f_{R1}: 6 GHz at -3 dBm f_{R2}: 6.01 GHz at -3 dBm
								+22 8/	f_{L0}: 18 GHz f_{R1}: 15 GHz at -3 dBm f_{R2}: 15.01 GHz at -3 dBm
16N 16S	400 mW	1.0 dB at P_R +4 dBm	1.0 dB at P_R -2 dBm	Positive	3.0:1	2.0:1	4.0:1	+14 8/	f_{L0}: 8 GHz f_{R1}: 6 GHz at -6 dBm f_{R2}: 6.01 GHz at -6 dBm
								+18 8/	f_{L0}: 18 GHz f_{R1}: 15 GHz at -6 dBm f_{R2}: 15.01 GHz at -6 dBm

1/ Where data does not appear in the table, the requirement does not apply.
2/ Unless otherwise specified, TV is the test value of the LO power for electrical characteristics.
3/ Measurements made at IF_2.
4/ Measurements made with +7 dBm applied to LO port.
5/ Measurements made with +7 dBm applied to RF port.
6/ These values are for +25°C and are derated linearly to +125°C.
7/ With two in-phase signals applied to the LO and RF ports and unused leads grounded.
8/ Input intercept point.

TABLE II. Physical and environmental characteristics. 1/

Dash no.	Weight (max)	Temperature range in celsius (operating on top nonoperating on bottom)	Mechanical shock (method 213) 2/	Hermetic seal (method 112) 2/	Terminal strength (method 211) 2/	Life
01N 01S	0.1 oz. (2.8 g)	-54° to +100° above 1 MHz -20° to +100° below 1 MHz -65° to +100°	---	No	---	---
02N 02S	0.1 oz. (2.8 g)	-54° to +100° -65° to +100°	C	Yes	C	---
03N 03S	0.1 oz. (2.8 g)	-54° to +100° -65° to +100°	---	Yes	---	---
04N 04S	0.1 oz. (2.8 g)	-65° to +125° -65° to +125°	---	No	---	---
05N 05S	0.1 oz. (2.8 g)	-18° to +85° -57° to +71°	---	No	---	30,000 hours operating after 10 years inert storage
06N 06S	0.1 oz. (2.8 g)	-55° to +100° -55° to +100°	C	Yes	C	---
07N 07S	0.1 oz. (2.8 g)	-55° to +100° -65° to +100°	C	Yes	---	---
08N 08S	0.1 oz. (2.8 g)	-55° to +100° -65° to +100°	C	Yes	C	---
09N 09S	0.1 oz. (2.8 g)	-55° to +100° -65° to +100°	C	Yes	C	---
10N 10S	0.1 oz. (2.8 g)	-55° to +100° -65° to +100°	C	Yes	C	---
11N 11S	0.38 oz. (10.6 g)	-54° to +100° -65° to +100°	C	Yes	C	---
12N 12S	0.32 oz. (9 g)	-55° to +100° -65° to +100°	C	Yes	C	---
13N 13S	0.21 oz. (6 g)	-55° to +100° -65° to +100°	C	Yes	C	---
14N 14S	0.42 oz (12 g)	-54° to +100° -65° to +100°	C	Yes	C	---
15N 15S	0.42 oz. (12 g)	-55° to +100° -65° to +100°	C	Yes	C	---
16N 16S	0.42 oz. (12 g)	-55° to +100° -65° to +100°	C	Yes	C	---

1/ Where --- is indicated, reference requirements as set forth in MIL-DTL-28837.

2/ Reference MIL-STD-202.

Referenced documents. In addition to MIL-DTL-28837, this document references the following:
MIL-STD-202

Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Custodians:
Army - CR
Navy - EC
Air Force - 85
DLA - CC

Preparing activity:
DLA - CC

(Project 5895-2012-003)

Review activities:
Army - AR, MI
Navy - AS, CG, MC, OS
Air Force - 19, 99

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at https://assist.dla.mil/.