APPENDIX C - SPECIFICATIONS

Transponder

Interrogations Output:

Mode:	A/C, Altitude or Pilot code, 2:1 interlace, or mode A (B mode available upon request)
Pulse Spacing:	P_2 and P_3 variable with respect to P_1 (±1 µs) from nominal for input decoder tests
PRF:	235 Hz Nominal
SLS Test:	±1.0 dB P_2 inserted at 0 dB or -9 dB relative to P_1
Power:	-66 to -79 dBm direct with 34 dB pad (±1.5 dB)

Reply Measurements:

Power (UUT):	10 W to 1.5 kW peak (±20%), direct with 34 dB pad
Accuracy:	±3 dB radiated with properly spaced antenna
Frequency Check:	1086 to 1093 MHz (±0.3 MHz)
Altitude Code:	Binary and Numerical Readout, -1.0 to +126.7 thousand feet
Pilot Code:	Binary and Numerical Readout, 0000 to 7777
Percent Reply:	0 to 100%, either A/C or A(B) modes
F_2 Pulse Position:	Measurement of rising and falling edge (±0.5 µs) from nominal
Status Lamps:	Ident Pulses, Invalid Altitude Code and No Altitude Code
Encoder Test:	Direct connection accepts altitude encoder

DME

Interrogations Measurements:

PRF: 0 to 30 and 0 to 300 Hz	
Power (UUT):	10 W to 1.5 kW (±20%), direct with 34 dB pad
Accuracy:	±3 dB radiated with properly spaced antenna
Frequency Check:	1038 to 1045 MHz (±0.3 MHz)

Reply Output:

Frequency:	Paired with VOR: 108.00 MHz (17X channel) or 108.05 MHz (17y channel) standard; 108.10 MHz (18X channel) standard
Output Power:	≈-45 dBm direct with 34 dB pad or radiated with properly spaced antenna

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Reply Output (cont):

Range:	0 to 399 NM in 1 NM steps
Accuracy:	±0.07 NM (±0.02%)
Range Steps:	0.025 NM (system), 0.1 NM displayed
Velocity:	Crystal controlled digital velocity with rates of 50, 75, 100, 150, 200, 300, 400, 600, 800, 1200, 1600 and 2400 knots (±0.02% of setting); Inbound or outbound starting from any selected range
Percent Reply:	100% or 50%
Ident Tone:	1350 Hz (±8 Hz) with equalizing pulses

Battery Operation

Type:	2.0 AH NiCad
Duration:	≈2 hours continuous operation

AC Power Requirements

Source Voltage and Frequency:	100 to 120 VAC at 60 Hz 220 to 240 VAC at 50 Hz
Power Consumption:	Maximum: 24 W for 100 to 120VAC at 60 Hz 16 W for 220 to 240 VAC at 50 Hz Nominal: 19 W for 115 VAC at 60 Hz 13 W for 230 VAC at 50 Hz
Nominal Input Current:	0.26 A at 115 VAC 0.14 A at 230 VAC

Fuse Requirements

F1 and F2:	1.0 A, Type F, 100 to 120 VAC 0.5 A, Type F, 220 to 240 VAC
Internal	10.0 A, Type F, 32V (Not Servicable by Operator)

Safety

This instrument is designed to comply with the requirements of EN61010-1/IEC1010-1, for Class 1 portable equipment and is for use in a pollution degree 2 environment. The equipment is designed to operate from an installation category II supply, to environmental conditions specified in paragraph 1.4 of EN61010-1.

Operational Environmental Conditions

This instrument operates over temperature extremes of -20° to +50° C.

Physical Characteristics

Weight:	≈18 lbs. (8.18 kg)
Width:	≈11.5 in (29.21 cm)
Height:	≈5.0 in (12.7 cm)
Depth:	≈16.25 in (41.275 cm)

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