

*

Frequency points	200 Hz	400 Hz	700 Hz	1,000 Hz	3,000 Hz	3,800 Hz	4,500 Hz	6,000 Hz
Upper Limits (dB)	+2.50	+7.0	+7.0	+3.75	+13.75	+13.75	+13.75	+3.0
Lower Limits (dB)	-11.0	-3.82 1/	-1.50	-4.25	-4.25	-4.25	-12.02 1/	---

1/ dB limits between key break point are calculated, using slope method.

FIGURE 2. Frequency response at ground level.

REQUIREMENTS

Component parts.

Microphone element: Shall be in accordance with figure 1.

Boom:

Dimensions: Dimensions of the boom shall be in accordance with USAF Drawing 67B1854, for interchangeability with the next-higher-assembly headset-microphone.

Color: Boom shall be the same color as the microphone element.

* Finish: Shall be in accordance with MIL-PRF-26542, (see boom finish requirements).

* Operation: Shall be in accordance with MIL-PRF-26542, (see boom-operating force requirements).

Material: Shall be constructed from a high-strength, corrosion-resistant metal, meeting or exceeding the environmental and durability requirements of MIL-PRF-26542.

* Cable assembly: The cable assembly shall be PIN M22442/36-1 in accordance with either requirement ^{1/} for interface to oxygen gear, interchangeability, and environmental performance. The microphone element shall provide a complete electrical and mechanical interface with the cable assembly.

Plug assembly: U-173/U, in accordance with USAF Drawing 57B12662, or electrically and mechanically compatible part.

Weight: 45 grams, maximum.

Performance:

Sensitivity at ground level: 34.04 dB - 42.92 dB (re 1 μ V) or 50.40 μ V - 139.63 μ V with a Sound Pressure Level (SPL) input of 28 dynes/cm² at 1 kHz, when tested with the microphone sound port .187 \pm .015 inch (4.75 \pm .38 mm) from, and coaxial with, the opening of the artificial voice.

Frequency response envelope at ground level:

* Shall be as shown on figure 2, when tested with the microphone sound port 0.187 \pm .015 inch (4.75 \pm .38 mm) from, and coaxial with, the opening of the artificial voice. The response curves generated shall be on the same scale as shown on figure 2. The response curve shall not exceed the upper and lower limit curves of the stationary Frequency Response Envelope, within the frequency ranges identified in the appropriate chart (see figure 2).

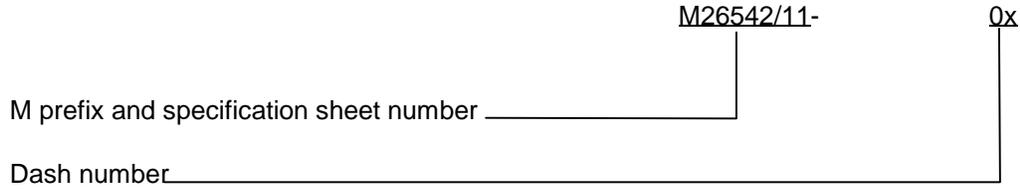
Impedance: 4.0 ohms to 6.0 ohms.

Resistive load: 5.0 ohms.

^{1/} The manufacturer shall meet the requirements of MIL-DTL-22442 in accordance with options specified in MIL-PRF-26542 for 'cable assemblies'.

MIL-PRF-26542/11B

- * Intended use: This is a noise-canceling dynamic microphone designed for use on a headband type headset at low altitudes. The microphone is intended to provide communication under the noise conditions encountered in military aircraft.
- * Marking: The microphone element shall be marked with the same PIN (i.e., M26542/11). The combined microphone-cable assembly PIN (i.e., M26542/11-01) shall appear on the packaging for that assembly, in accordance with MIL-STD-129 and as shown in table I below.



The microphone assembly shall be tested in accordance with the tests listed in table II.

TABLE I. PIN designations.

PIN	Characteristics
M26542/11	Supplied with microphone element only.
M26542/11-01	Supplied with microphone element, boom, and cable assembly M22442/36-3 (13.00 in).

TABLE II. Parameter applicability.

Inspection	Qualification	Group "A"	Group "B"	Group "C"
Group I				
Visual and mechanical inspection	X	X		
Sensitivity at ground level	X	X		
Sensitivity at altitude	X			
Frequency response at ground level	X	X		
Frequency response at altitude	N/A	N/A		
Impedance	X	X		
Noise cancellation characteristic	X			
Effect of external magnetic field	X			
Stray magnetic field	X			
Linearity	X			
Talk-out	X	X		
Dielectric withstanding voltage	X			
Signal-to-noise	X		X	
Distortion	X		X	
Interchangeability	X		X	
Group II				
Thermal shock	X			X
Humidity	X			X
Drop	X			X
Pressure equalization	X			X
Explosive decompression	N/A			N/A
Salt fog	X			X
Group III				
Vibration	X			X
Bounce	X			X
Altitude	N/A			N/A
Moisture barrier seal	X			X
Immersion	X			X
Group IV				
Fungus	N/A			
Group V				
Gun blast	N/A			
Boom finish	X		X	
Boom operating force	X		X	

MIL-PRF-26542/11B

The margins of this specification are marked with asterisks to indicate where changes from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

*

CONCLUDING MATERIAL

Custodians:

Army - CR
Navy - EC
Air Force -11
DLA - CC

Preparing activity:

DLA - CC

(Project 5965-0351-007)

Review activities:

Army - AR, AT, AV, CR4
Navy - AS, OS
Air Force - 99