



U.S. Patent 7,746,282

### DESCRIPTION

**S65-8282-834:** Is a replacement for the Cobham 12-190-6/1, when used with the provided adapter plate.

Representing current state-of-the-art in digitally-tuned antenna technology, the S65-8282-834 provides high-gain VHF/UHF performance. Frequency tuning is accomplished using solid-state microprocessor technology with switching speeds less than 50 microseconds, supporting secure, frequency-hopping voice communication systems.

The aerodynamic composite blade of the antenna houses a microprocessor-based logic controller, RF tuning circuitry and DC switching power supply resulting in a single antenna package. The antenna operates on a standard 28 VDC power source. The antenna is ideal for applications with severe mounting concerns.

Frequency setting information is transmitted directly to the antenna from the radio via a multi-pin connector. Tuning of the inductor circuits is achieved by the logic controller via PIN diodes.

The antenna is compatible with Rockwell Collins ARC-210, Raytheon ARC-231, and R&S M3AR Series 6000

FEDERAL & MILITARY SPECS: MIL-HDBK-5400, MIL-STD-810.

NSN: 5985015985646

### PERFORMANCE

| GAIN S65-8282-834 |     |    |     |     |     |     |     |
|-------------------|-----|----|-----|-----|-----|-----|-----|
| Freq. (MHz)       | 30  | 88 | 108 | 174 | 225 | 400 | 512 |
| Gain              | -10 | -6 | -1  | -1  | -1  | -1  | -1  |



| SPECIFICATIONS         |   |
|------------------------|---|
| <b>MODEL</b>           | <b>S65-8282-834</b>                                     |
| <b>ELECTRICAL</b>      |   |
| <b>Frequency</b>       | 30 40/50 60 70/80/88 108-174 225-512                    |
| <b>VSWR</b>            | 1.7 1.3 1.5 1.9 2.0 1.8                                 |
| <b>Pattern</b>         | Omnidirectional in Azimuth<br>Cosinusoidal in Elevation |
| <b>Polarization</b>    | Vertical  |
| <b>Impedance</b>       | 50 Ohms   |
| <b>Switching Speed</b> | < 50 μS   |
| <b>MECHANICAL</b>      |   |
| <b>Weight</b>          | 5.0 lbs.  |
| <b>Material</b>        | 6061-T6 Aluminum Alloy/Fiberglass                       |
| <b>Finish</b>          | Skydrol Resistant Polyurethane Enamel                   |
| <b>RF Connector</b>    | J1 TNC Female   |
| <b>DC Connector</b>    | J2 MS27505E11A35P Male                                  |
| <b>Drag</b>            | 2.0 lbs. Mach .85 @ 35,000ft.                           |
| <b>ENVIRONMENTAL</b>   |   |
| <b>Temperature</b>     | -54°C (-65°F) to +71°C (+160°F)                         |
| <b>Altitude</b>        | 50,000 ft.  |
| <b>Shock</b>           | 20 Gs   |
| <b>Side Load</b>       | 9 psi   |

