

# Radio S-Units vs Power Levels for HF and VHF/UHF Transceivers

| S-reading | HF                        |        | VHF                       |        |
|-----------|---------------------------|--------|---------------------------|--------|
|           | $\mu\text{V @ } 50\Omega$ | Po dBm | $\mu\text{V @ } 50\Omega$ | Po dBm |
| S9+20dB   | 500                       | -53    | 50                        | -73    |
| S9+10dB   | 160.0                     | -63    | 16.00                     | -83    |
| S9        | 50.2                      | -73    | 5.00                      | -93    |
| S8        | 25.1                      | -79    | 2.50                      | -99    |
| S7        | 12.6                      | -85    | 1.26                      | -105   |
| S6        | 6.3                       | -91    | 0.63                      | -111   |
| S5        | 3.2                       | -97    | 0.32                      | -117   |
| S4        | 1.6                       | -103   | 0.16                      | -123   |
| S3        | 0.8                       | -109   | 0.08                      | -129   |
| S2        | 0.4                       | -115   | 0.04                      | -135   |
| S1        | 0.2                       | -121   | 0.02                      | -141   |

From IARU Region 1 Technical  
Recommendation R.1 1981

Oct 10 2025