

Title (en)
Dual reflector microwave antenna.

Title (de)
Mikrowellenantenne mit Haupt- und Hilfsreflektor.

Title (fr)
Antenne hyperfréquence à deux réflecteurs.

Publication
EP 0102846 A1 19840314 (EN)

Application
EP 83305153 A 19830906

Priority
US 41532382 A 19820907

Abstract (en)
A microwave antenna which comprises a paraboloidal main reflector (10); a subreflector (13) located between the main reflector (10) and the focal point (F) of the main reflector (10) and forming a reflecting surface which is shaped symmetrically about the center thereof, the central portion of the reflecting surface sloping axially away from the main reflector (10) at a rate which reduces as the radius of the subreflector (13) increases, the radially outer portion of the subreflector (13) sloping axially toward the main reflector (10) at a rate which increases as the radius of the subreflector (13) increases; and a feed horn (11) for transmitting microwave signals to, and receiving microwave signals from, the subreflector (13), the reflecting surface of the subreflector being positioned and dimensioned to intercept substantially all the energy launched through the feed horn (11) or reflected by the main reflector (10). The feed horn (11) is preferably a smooth-walled waveguide having an aperture diameter substantially equal to one wavelength of the midband signals propagated therethrough.

IPC 1-7
H01Q 19/19

IPC 8 full level
H01Q 19/19 (2006.01)

CPC (source: EP)
H01Q 19/193 (2013.01)

Citation (search report)

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