BASE STATION ANTENNA

BSM-VHF 120-174 MHz

The omnidirectional antenna, vertically polarized, produced in versions cover the whole VHF band. Waterproof construction and careful material selection ensure dependable service in all environments. Vertical radiation pattern is optimized with a special consideration of mobile radiocommunications operating in urban environment. The antenna is DC-grounded, closed in fiberglass cover painting with polyurethane varnish, ensuring resistance to all climatic conditions. The antenna is produced in two versions of the mounting. The antenna is produced in two versions cover the whole VHF band. Air version of the antenna signed as BSK-AIR is operating in the frequency range 116 – 140Mhz.
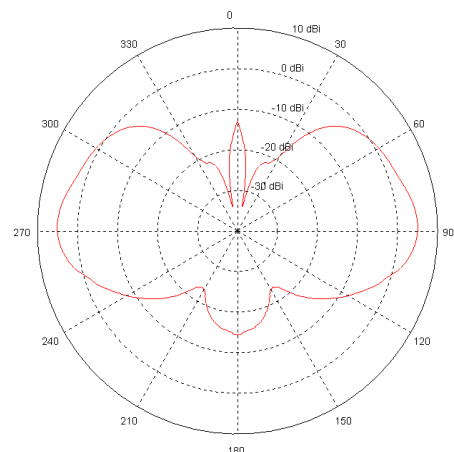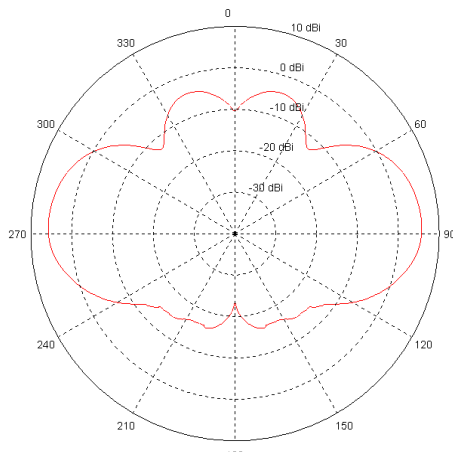
ELECTRICAL

Gain (ref. to λ/2 dipole)	3 dB
Horizontal radiation pattern	Omnidirectional
Impedance	50 Ω
Antenna type	colinear, 2 x 5/8 λ
VSWR	≤1,5
Maximum power	500 W
Bandwidth	20 MHz
Frequency range	116 – 175 MHz versions with 20MHz bandwidth, 116 – 136MHz BSK-AIR version
Horizontal radiation pattern code (H-plane)	000ND00 (CEPT Recommendation T/R 25-08)
Vertical radiation pattern code (E-plane)	017DE30 (CEPT Recommendation T/R 25-08)

MECHANICAL

Connector	N
Material	Aluminium, fiberglass
Polarization	Vertical
Dimensions of mounting mast	diameter 40,00 mm, length 190,00 mm or aluminium cast
Weight	1,3 kg
Lightning protection	galvanic, on mounting corpus
Total height	3000,00 mm
Packaging	Carton box
Length of mounting mast	190 mm
Wind speed	45 m/s

CLIMATIC CONDITIONS

Temperature range	-40°C ÷ +70°C
Humidity	≤ 100% at +40°C

Vertical radiation pattern

VSWR
BSM 148 VHF

M1: 1,448 VSWR @ 146,90 MHz   M2: 1,20 VSWR @ 149,80 MHz
M3: 1,215 VSWR @ 159,20 MHz   M4: 1,488 VSWR @ 164,30 MHz
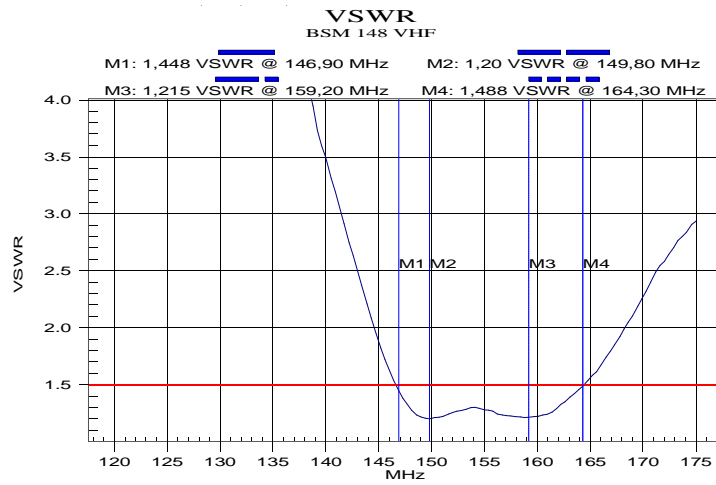
VSWR of version 148MHz

VSWR
BSM 150

M1: 1.478 VSWR @ 150.00 MHz   M2: 1.309 VSWR @ 155.00 MHz
M3: 1.413 VSWR @ 160.00 MHz   M4: 1.551 VSWR @ 170.00 MHz
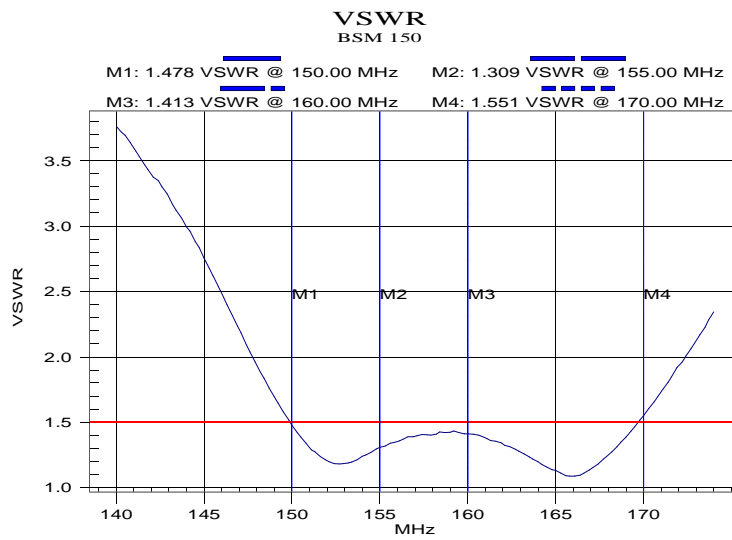
VSWR of version 150MHz

VSWR
BSM 160 VHF

M1: 1,497 VSWR @ 160,50 MHz   M2: 1,101 VSWR @ 164,30 MHz
M3: 1,119 VSWR @ 174,50 MHz   M4: 1,497 VSWR @ 180,40 MHz
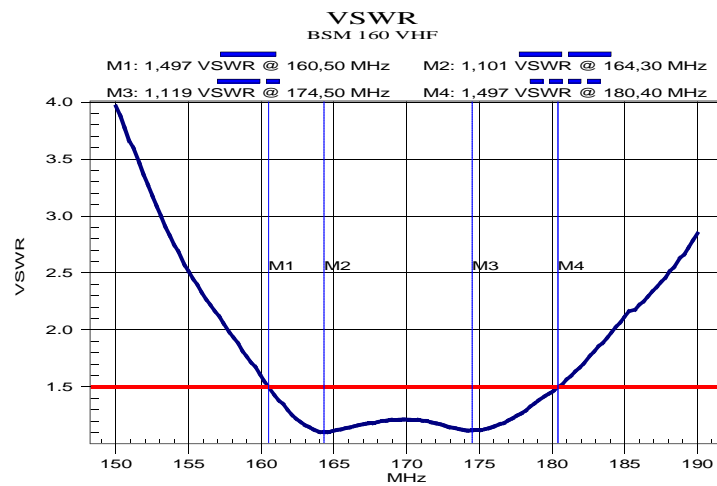
VSWR of version 160MHz
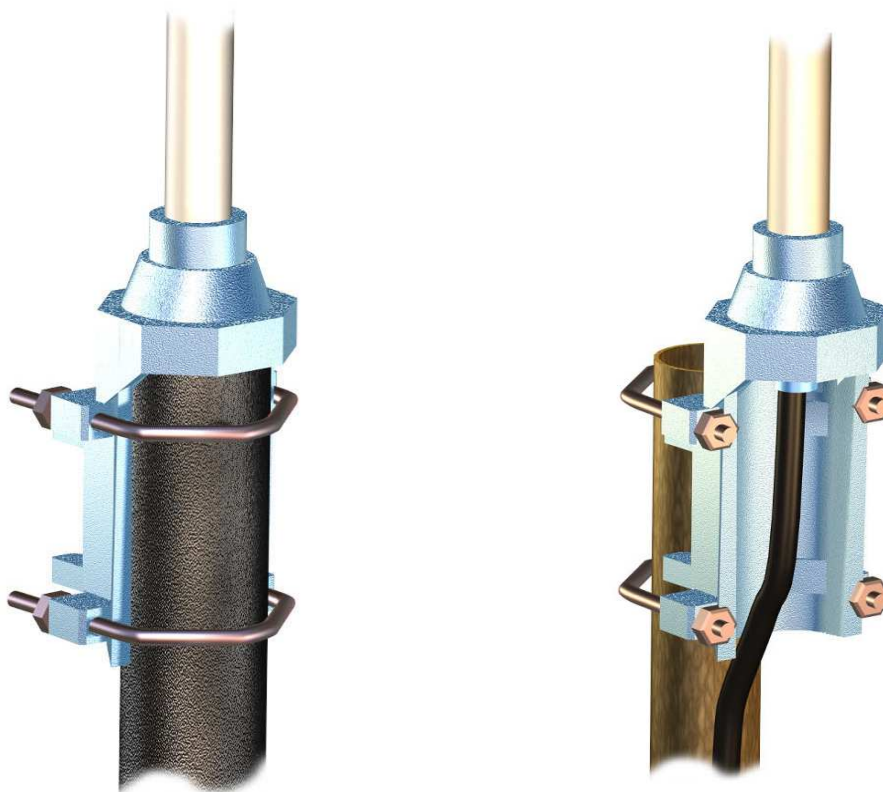
Mounting versions of the antenna with the mounting cast