

# Conical horn antenna systems for SAF Spectrum Compact

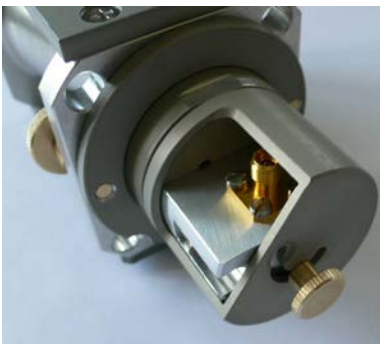


Compact, lightweight, and reliable conical horn antenna systems are essential part of the ultimate solution for performing microwave link measurements, performance checks, failure searches and interference detections using SAF Spectrum Compact. It is easy to climb the tower with the small-size and lightweight horn antenna that can be mounted on horizontal or vertical pole by hand without any tools

The antenna product family consists of four small-size, wideband (6-10GHz, 11-15 GHz, 17-24 GHz, 26-40 GHz) conical horn antennas, a smart mounting system, and optional coaxial-to-waveguide adapters. Water and shock proof case, tripod and riflescope for direction finding are also available upon request.

## Electrical and mechanical specifications

Horn type	J0AA0610HG02	J0AA1115HG01	J0AA1724HG01	J0AA2640HG03
Operating frequency, GHz	6.000-10.000	10.700-15.350	17.000-24.500	26.500-40.500
Gain (typical), dBi	14.5-18	19.5-20.5	21.0-21.5	20.5-21.5
HPBW	<u>E-plane:</u> ~30° @ 6 GHz ~25° @ 7 GHz ~23° @ 8 GHz ~21° @ 9 GHz ~20° @ 10 GHz  <u>H-plane:</u> ~35° @ 6 GHz ~30° @ 7 GHz ~27° @ 8 GHz ~24° @ 9 GHz ~22° @ 10 GHz	<u>E-plane:</u> ~15° @ 11 GHz ~14.5° @ 12 GHz ~13.5° @ 13 GHz ~13° @ 14 GHz ~12.2° @ 15 GHz  <u>H-plane:</u> ~19° @ 11 GHz ~17.5° @ 12 GHz ~16° @ 13 GHz ~15° @ 14 GHz ~14.5° @ 15 GHz	<u>E-plane:</u> ~14° @ 17 GHz ~13.5° @ 18 GHz ~13° @ 19 GHz ~12.5° @ 20 GHz ~12.5° @ 21 GHz ~12° @ 23 GHz ~11.5° @ 24 GHz  <u>H-plane:</u> ~17.5° @ 17 GHz ~16.5° @ 18 GHz ~16° @ 19 GHz ~15.5° @ 20 GHz ~15° @ 21 GHz ~14° @ 23 GHz ~13.5° @ 24 GHz	<u>E-plane:</u> ~14° @ 26.5 GHz ~13.5° @ 28 GHz ~13° @ 30 GHz ~12.5° @ 32 GHz ~12° @ 36 GHz ~11.5° @ 38 GHz ~11° @ 40 GHz  <u>H-plane:</u> ~17.5° @ 26.5 GHz ~16.5° @ 28 GHz ~15.5° @ 30 GHz ~15° @ 32 GHz ~13.5° @ 36 GHz ~13° @ 38 GHz ~12.5° @ 40 GHz
Dimensions, mm	300 x 145 x 120	216 x 142 x 120	175 x 107 x 87	120 x 86 x 60
Net weight, kg	1.5	1.3	0.7	0.4
Flange (connector)	SMA	UBR120	UBR220	2.92 mm (K)
Matching Spectrum Compact unit	J0SSAP11	J0SSAP12	J0SSAP13	J0SSAP14

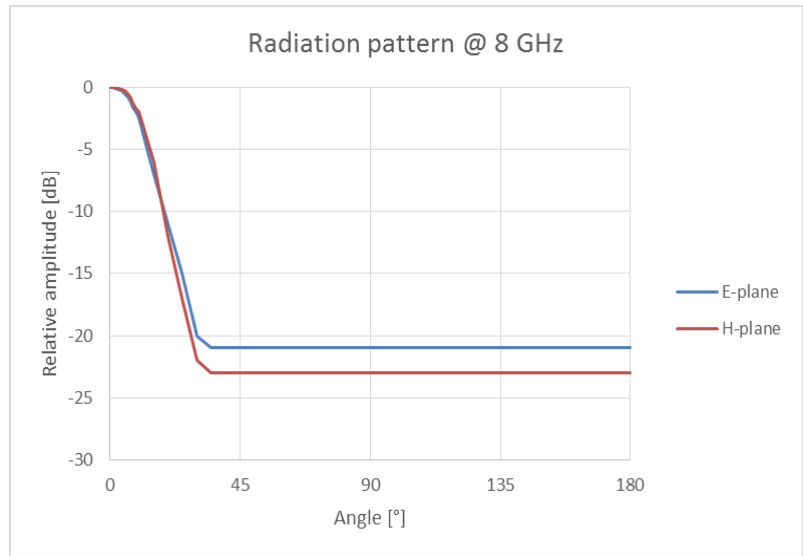


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# Radiation patterns

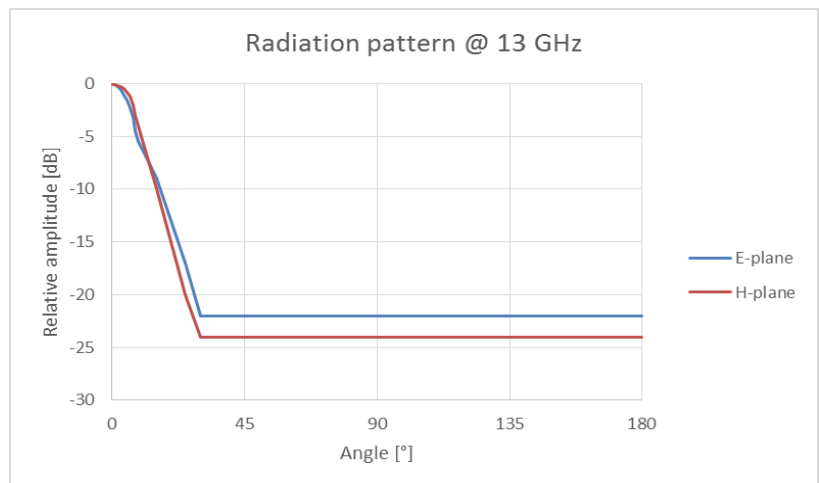
J0AA0610HG02

Angle [°]	Radiation pattern @ 8 GHz	
	E-plane [dB]	H-plane [dB]
0	0	0
1	0	0
2	-0,1	0
3	-0,2	-0,1
4	-0,3	-0,2
5	-0,5	-0,3
6	-0,8	-0,5
7	-1,2	-0,9
8	-1,6	-1,3
9	-2	-1,7
10	-2,5	-2
15	-7	-6
20	-11	-12
25	-15	-17
30	-20	-22
35	-21	-23
180	-21	-23



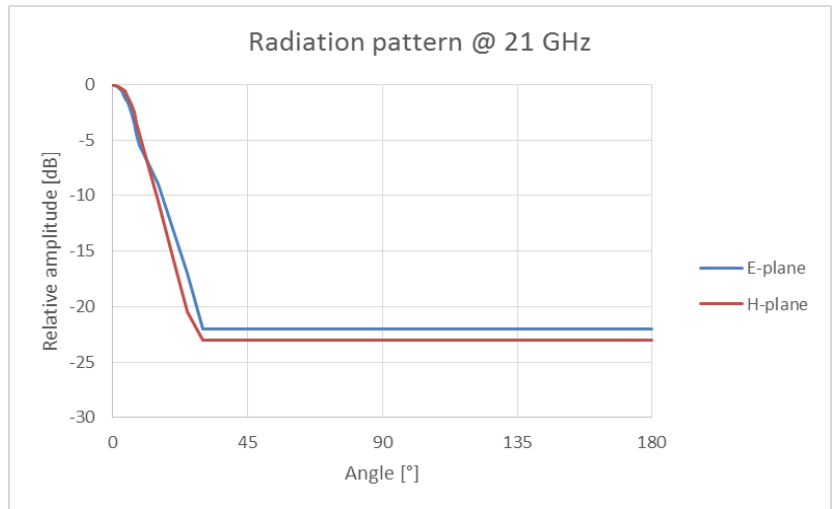
J0AA1115HG01

Angle [°]	Radiation pattern @ 13 GHz	
	E-plane [dB]	H-plane [dB]
0	0	0
1	-0,1	-0,1
2	-0,3	-0,2
3	-0,6	-0,3
4	-1,1	-0,5
5	-1,6	-0,8
6	-2,3	-1,2
7	-3,2	-2
8	-4,5	-3
9	-5,5	-4
10	-6	-5
15	-9	-10
20	-13	-15
25	-17	-20
30	-22	-24
180	-22	-24



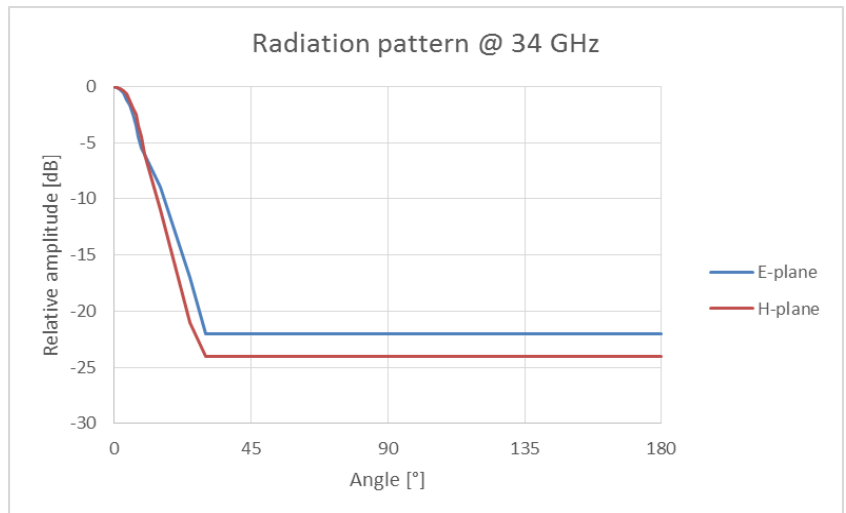
J0AA1724HG01

Angle [°]	Radiation pattern @ 21 GHz	
	E-plane [dB]	H-plane [dB]
0	0	0
1	-0,1	-0,1
2	-0,3	-0,2
3	-0,6	-0,4
4	-1,2	-0,6
5	-1,7	-1,2
6	-2,5	-1,8
7	-3,5	-2,5
8	-4,5	-3,5
9	-5,5	-4,5
10	-6	-5,5
15	-9	-10,5
20	-13	-15,5
25	-17	-20,5
30	-22	-23
180	-22	-23



J0AA2640HG03

Angle [°]	Radiation pattern @ 34 GHz	
	E-plane [dB]	H-plane [dB]
0	0	0
1	-0,1	-0,1
2	-0,3	-0,2
3	-0,6	-0,4
4	-1,2	-0,7
5	-1,7	-1,3
6	-2,5	-1,9
7	-3,5	-2,5
8	-4,5	-3,5
9	-5,5	-4,5
10	-6	-6
15	-9	-11
20	-13	-16
25	-17	-21
30	-22	-24
180	-22	-24



## Optional equipment

Riflescope, tripod, water and shock proof case. Please contact [sales@saftehnika.com](mailto:sales@saftehnika.com) for more information.

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