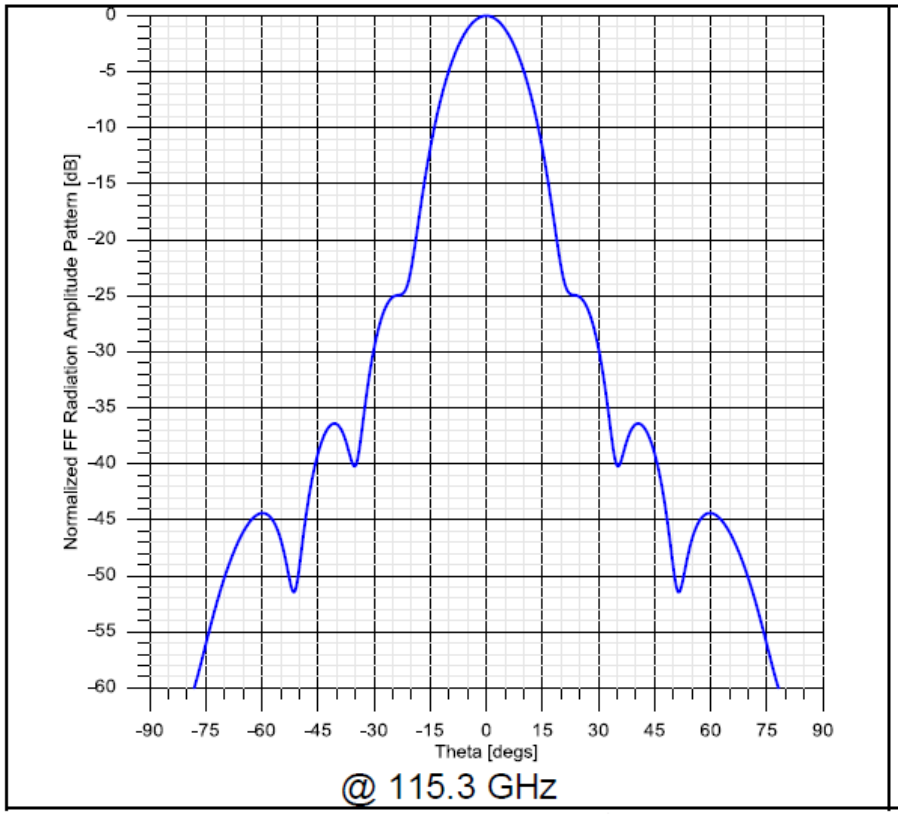
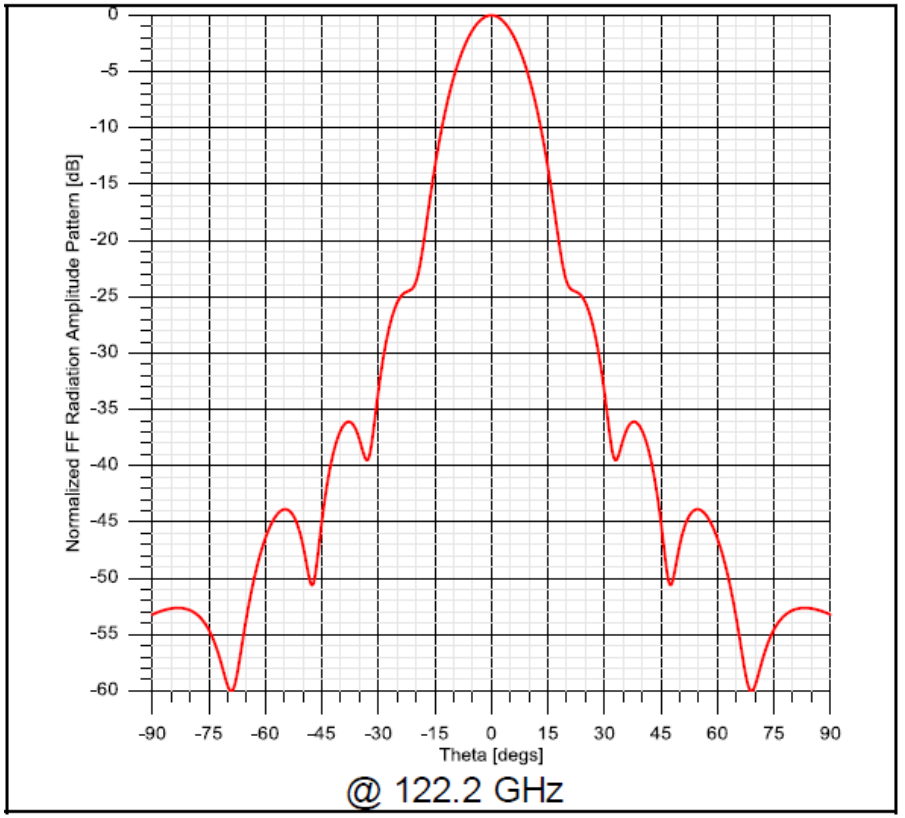
Annex1: ESA/EUMETSAT passive sensor parameters in the 116-122, 174.8-182 and 185-190 GHz bands

Sensor ID	MWI	MHS	MWI	MWS	ICI	AWS
Frequency range (GHz)	114.25-122.25	174.8-191.8				174.8-182
Sensor type	Conical scan	Nadir scan	Conical scan	Nadir scan	Conical scan	Nadir scan
Orbit parameters						
Altitude (km)	830	822	830	830	830	600
Inclination (°)	98.7	98.7	98.7	98.7	98.7	98.7
Eccentricity	0.001	0.001	0.001	0.001	0.001	0.001
Repeat period (days)	29	29	29	29	29	TBD[1]
Sensor antenna parameters						
Maximum beam gain (dBi)	55.5	44.8	56.9	43	52	50
-3 dB beamwidth (°)	Att.1	1.1	Att.2	Att.3	Att.4	Att.3
Off nadir pointing angle (°)	45.2	49.4	45.2	49	45.2	49
Sensor protection criteria						
Reference bandwidth (MHz)	200	200	200	200	200	200
Maximum interference level (dBW)	-166	-163	-163	-163	-163	-163
Percentage of area or time permissible interference level may be exceeded (%)	0.01	0.01	0.01	0.01	0.01	0.01

[1] the repeat cycle value depends on the number of satellites in a possible small constellation of small satellites

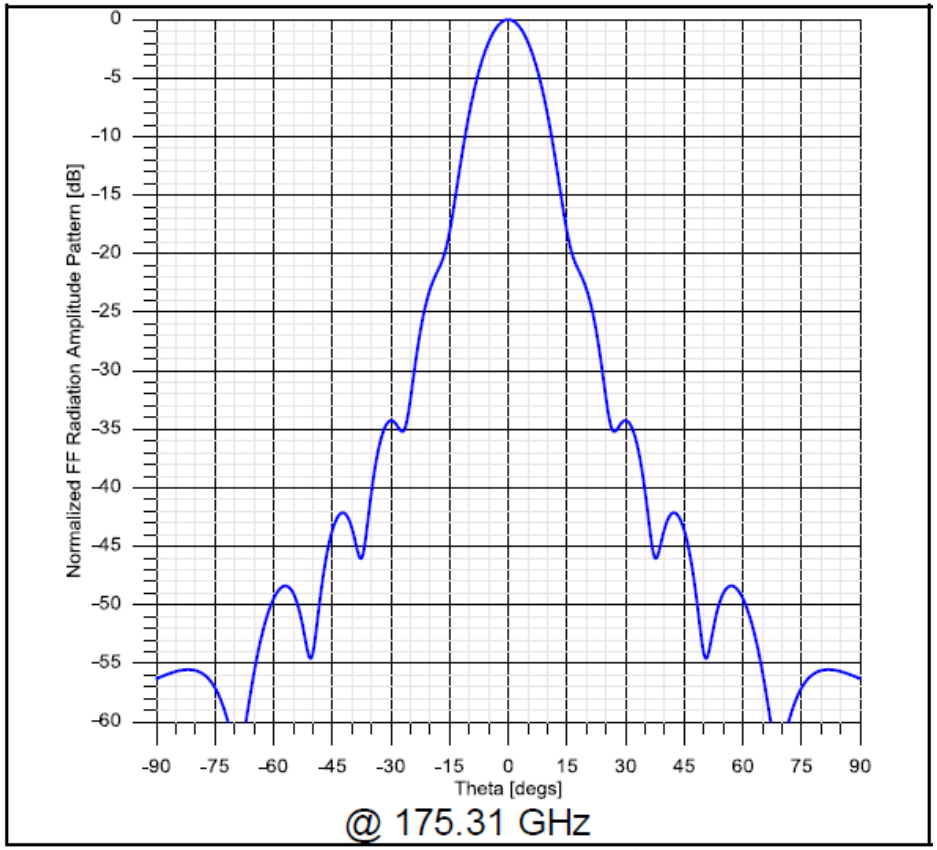
ATTACHMENT 1 (Antenna Pattern for MWI, 118 GHz)

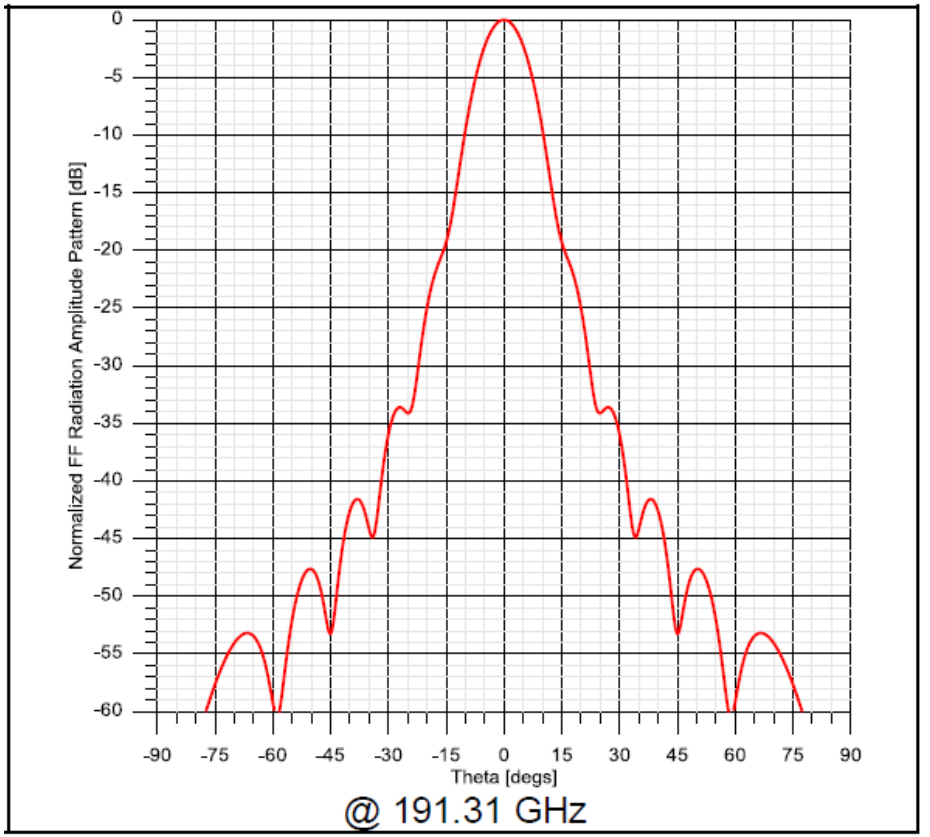




Note: The values on theX-axis should be interpreted as being 10 times the actualoffset angle values (e.g. 15° on the X-axis means 1.5°offset angle)

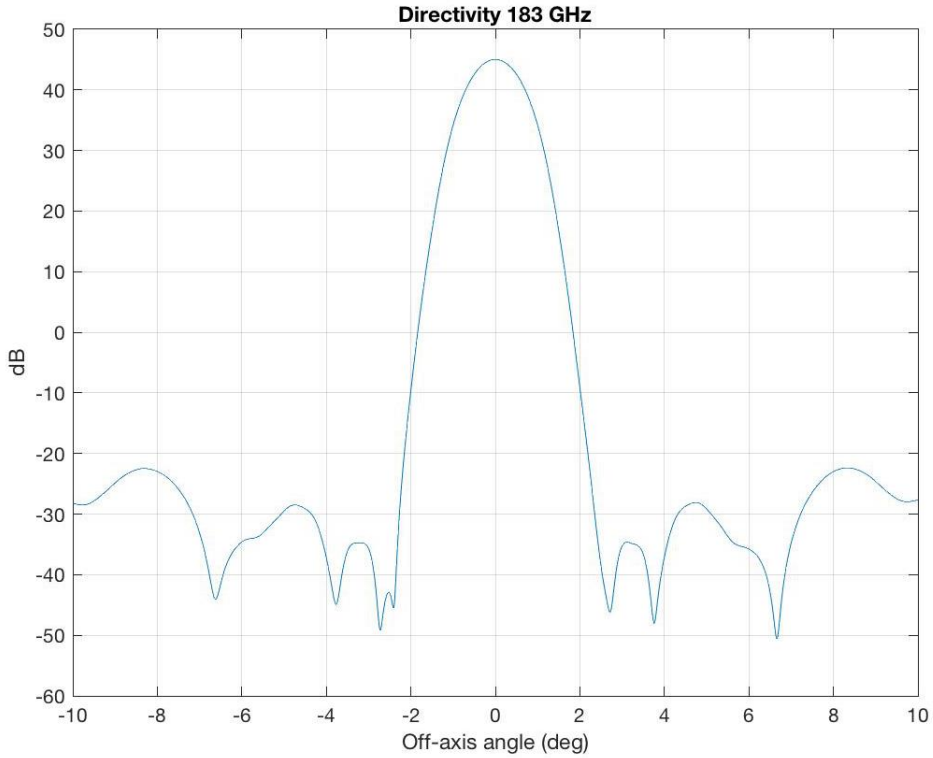
ATTACHMENT 2 (Antenna Pattern for MWI, 183 GHz)

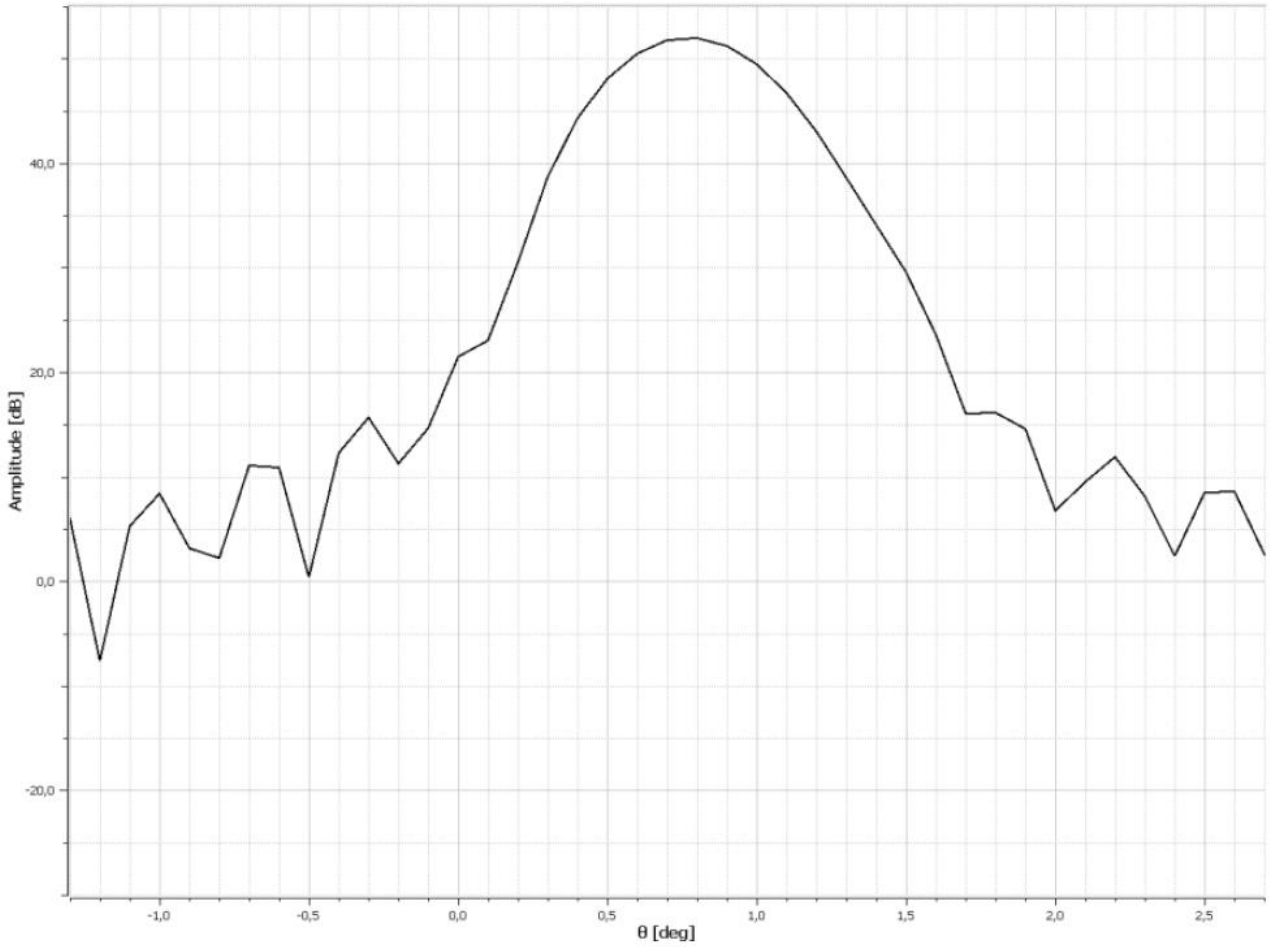




Note: The values on theX-axis should be interpreted as being 10 times the actualoffset angle values (e.g. 15° on the X-axis means 1.5°offset angle)

ATTACHMENT 3 (Antenna Pattern for MWS, 183 GHz)



ATTACHMENT 4 (Antenna Pattern for ICI, 183 GHz)

(Co-polar radiation pattern zoomed area from -1.3 to 2.7°)