

Antenna Parameters

Parameter	868/915 band*		GNSS	S-Band	
Frequency Range (MHz)	862-870	902-928	1500-1700	1950-2250	
Typical Frequency (MHz)	870	915	1575	2000 (up)	2180 (down)
Peak Total Gain (dBi)**	1.69	1.75	1.31	2.68	2.78
Peak RHCP Gain (dBic)**	1.49	1.62	0.99	2.51	1.53
Average Gain (dBi)**	-2.3	-2.2	-2.74	-1.77	-2.85
Total Efficiency	< 49%	< 50%	< 37%	< 46%	< 45%
Axial Ratio (dB)	< 6	< 6	< 6	< 6	< 6
Reflection coefficient (dB)	< -10	< -10	< -6	< -6	< -6
Peak EIRP (dBm)***	23.69	23.75	N/A	26.51	N/A

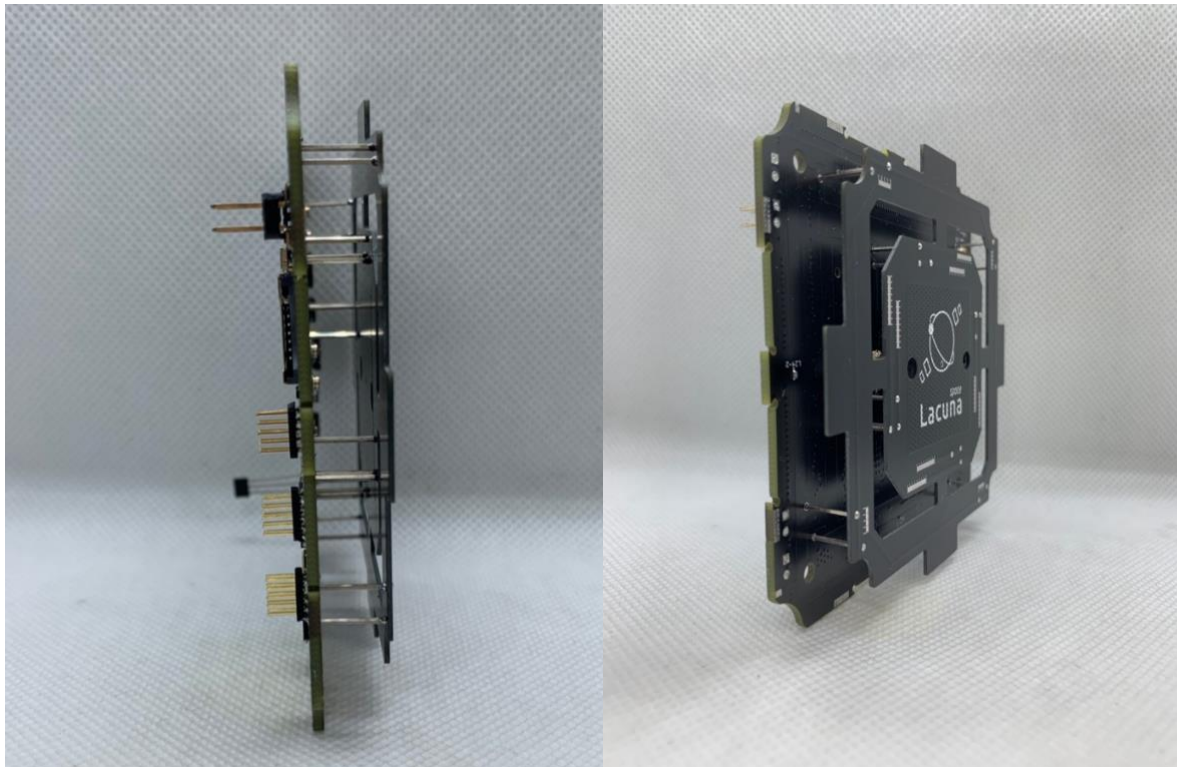
* Model variant 868: LS300-868-A, Model variant 915: LS300-915-A

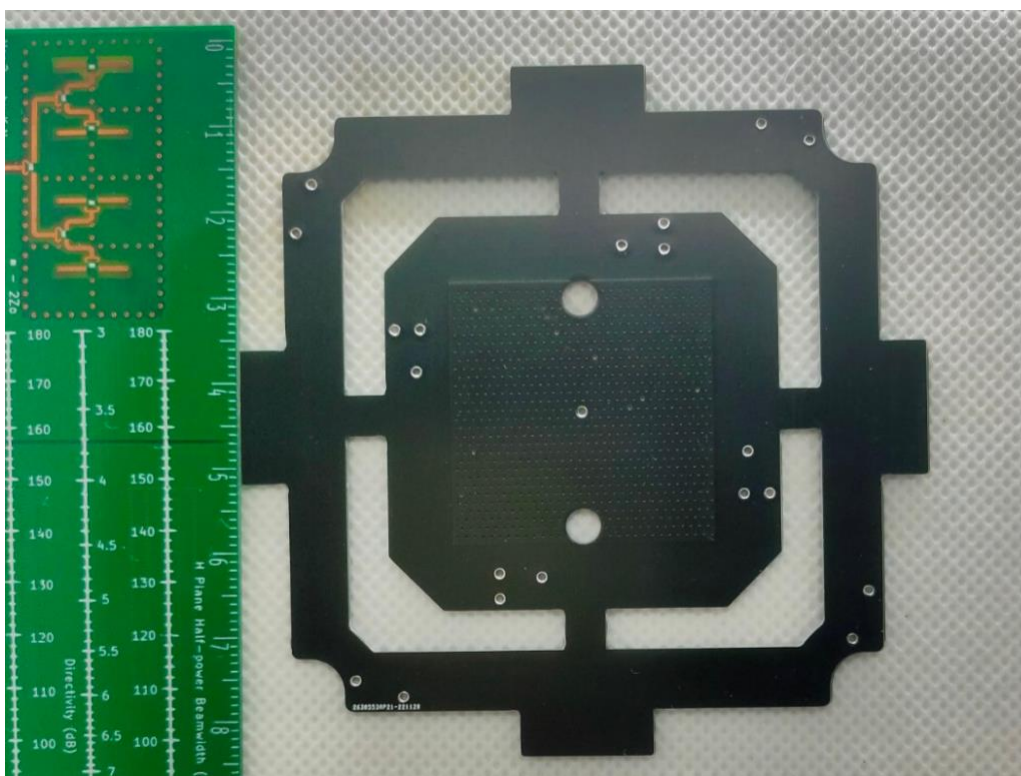
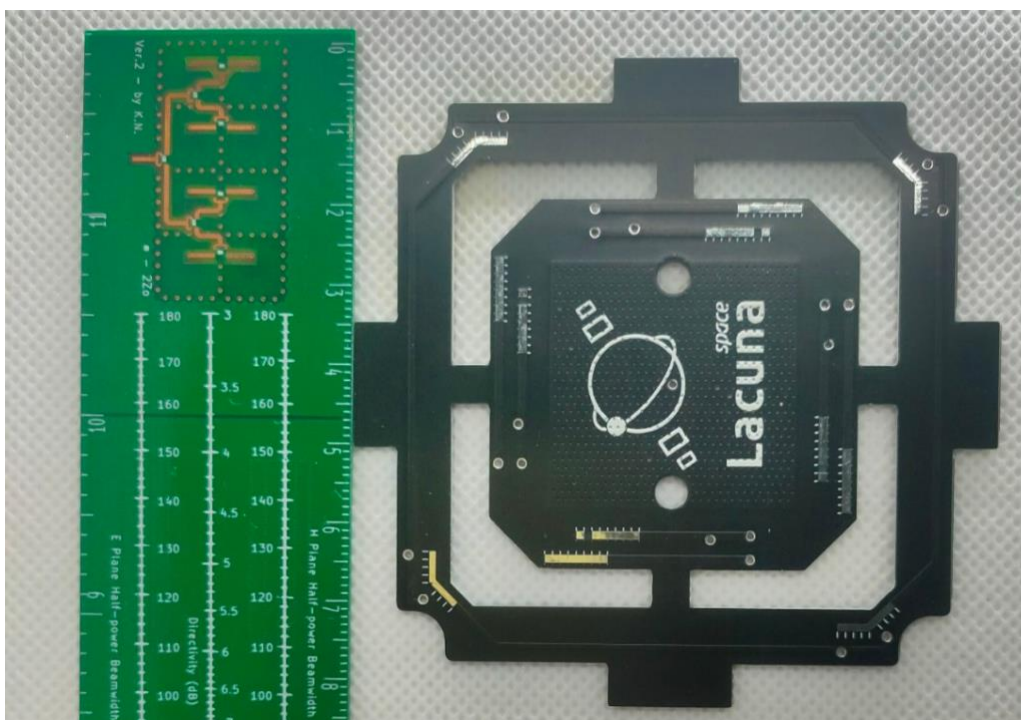
** Values for "Typical Frequency"

*** Hardware maximum. Transmissions will be limited in software according to regional regulations.

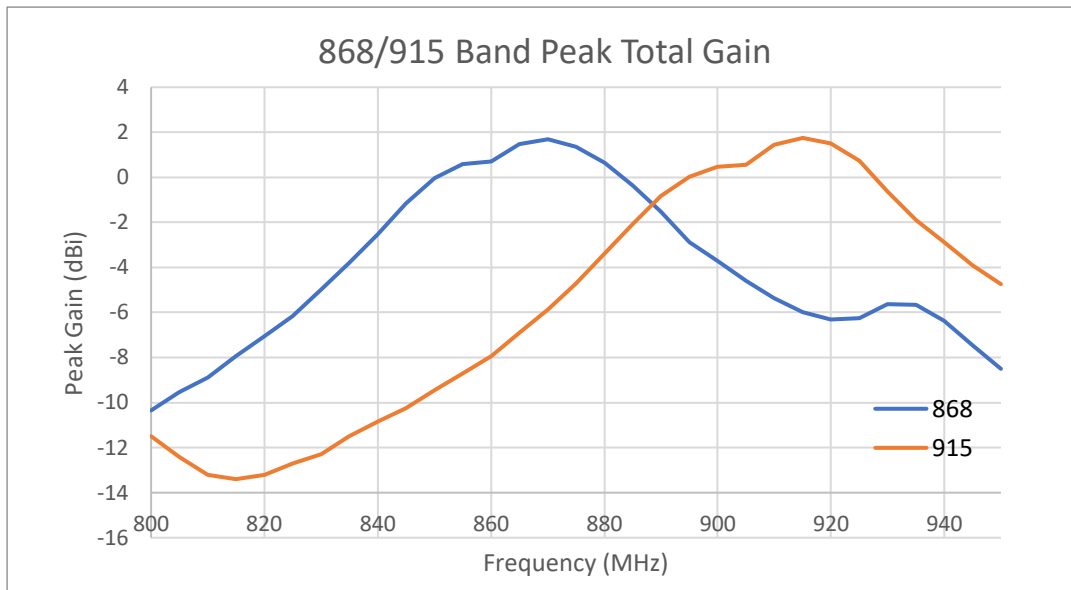
All antennas are integrated RHCP patch antennas. These antennas are custom made for the LS300 devices, which is why they do not have part numbers or drawing numbers.

The antennas will be fixed, i.e. not replaceable by other antennas.

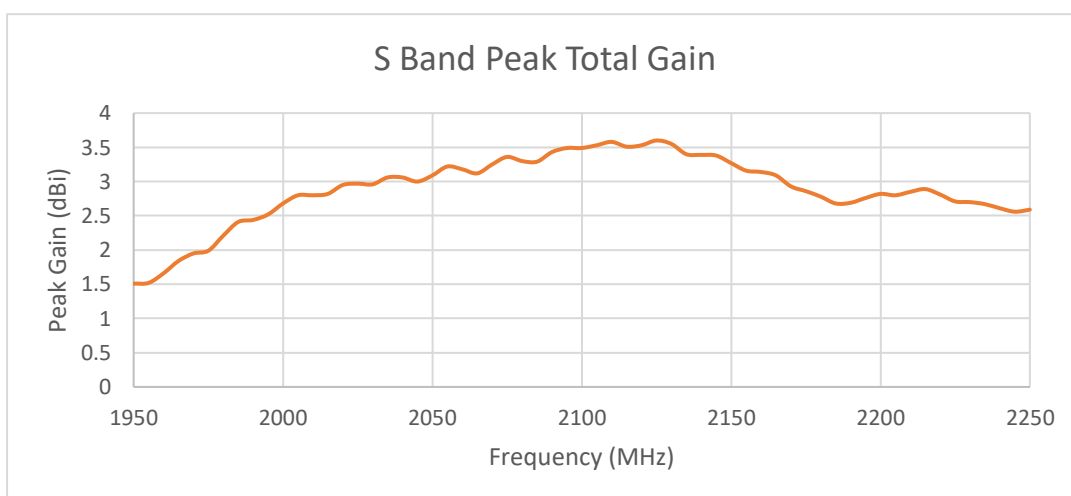
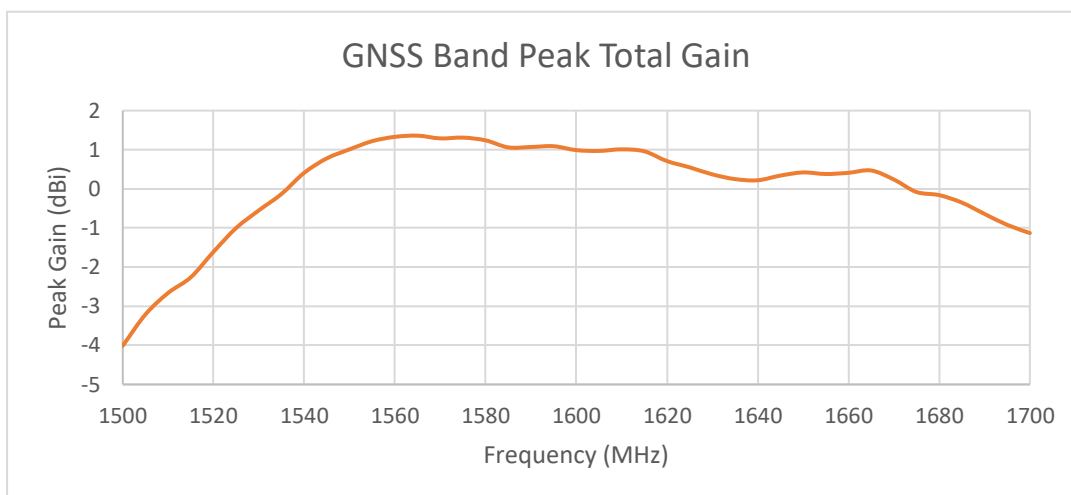




Gain diagrams

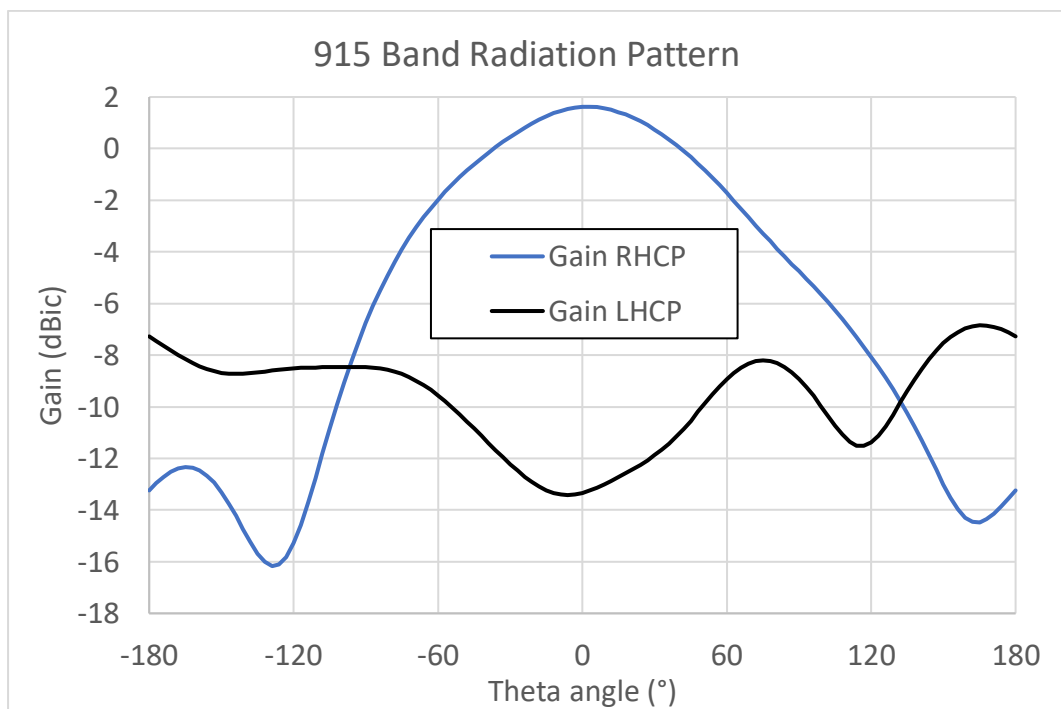
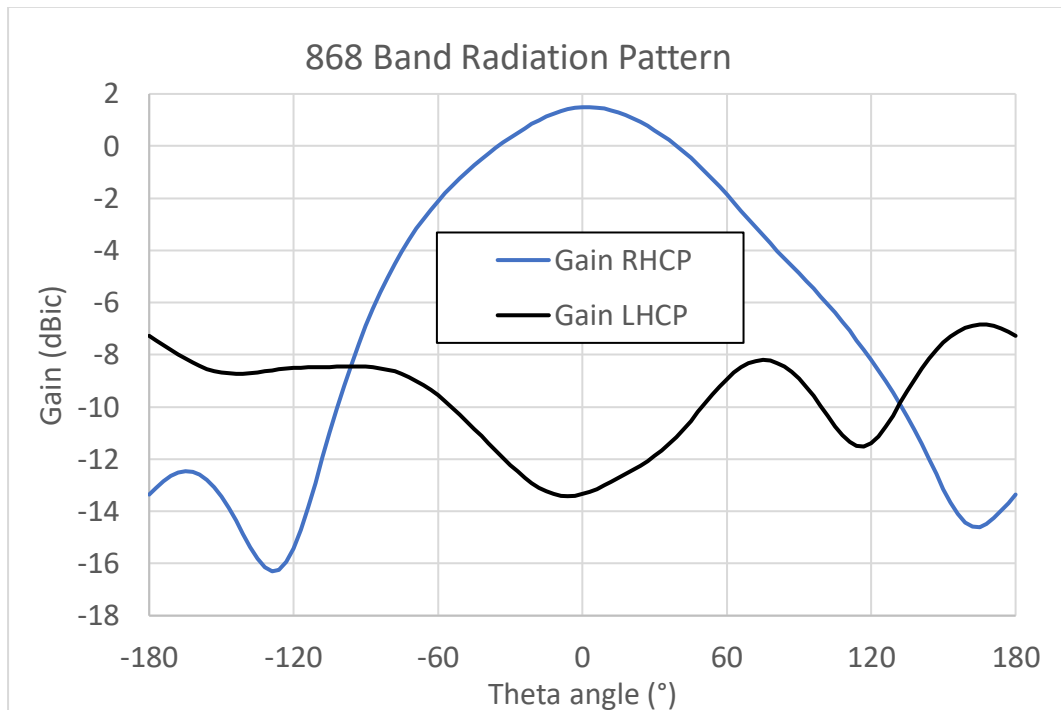


* Depending on model variant (LS300-868-A or LS300-915-A)

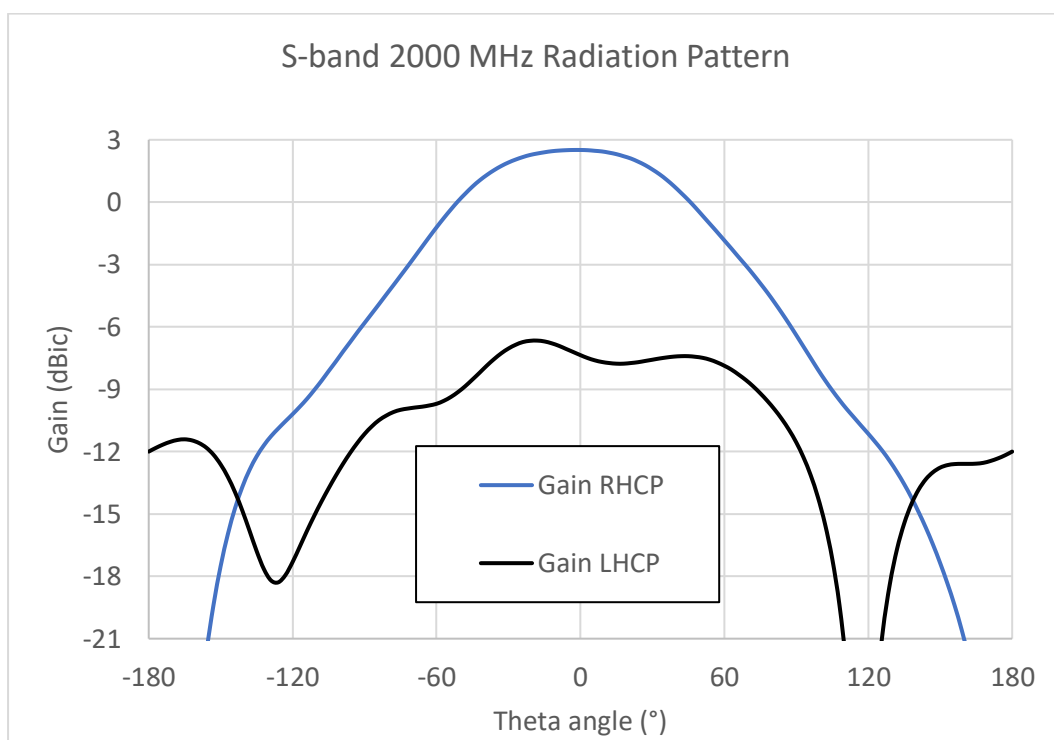
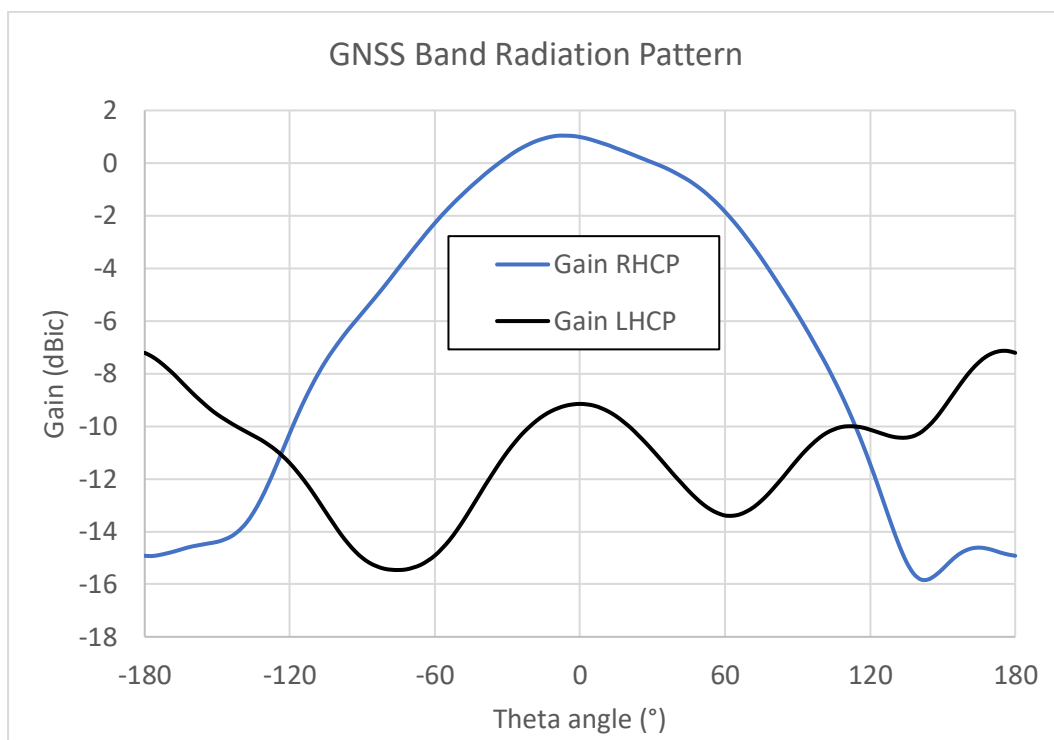


Note: The max peak total gain in this graph is higher than the value specified in the table above. However, the device will never be operated outside of 1980-2010 MHz (TX) and 2170-2200 MHz (RX), which is why “typical” values have been indicated in the table for both transmission directions.

Radiation Patterns



Note: The radiation patterns for the 868 Band and 915 Band look identical, however they have marginal differences.



S-band 2180 MHz Radiation pattern

