Antenna System Lay-out

1575.42MHz Patch

1st Stage LNA
16dB gain
K>=1 (unconditionally stable)

Passive Lump element
2 pole BPF
atten >19dB fo -50MHz
> 15dB fo +50MHz
BW 50MHz

2nd Stage LNA
16dB gain
K>=1 (unconditionally stable)

Low Noise Linear Regulator
1. Over-current shutdown
2. Short-circuit shutdown
3. Reverse polarity protect

This built-in regulator protection circuits are design to protect the external GPS receiver (host) if any condition occurs.

LPF 2 pole
PassBand: 1565MHz

RF Vcc I/O

ANTENNA SYSTEMS LAY-OUT
L1 BAND ANTENNA RF CIRCUIT TEST
ANTENNA RADIATION PATTERN TEST

STR-03 PLOT TEST
Stars Navigation Technologies Ltd
Innovative GPS and AVL Car Security Systems

```
Radius = 100 m
Rings = 25 m
Max Dev = 15.7 m
Validation -> YES

Positioning Stats.
0 metres
Pts. 24008 (100.0%)
25 metres
Pts. 0 (0.0%)
50 metres
Pts. 0 (0.0%)
75 metres
Pts. 0 (0.0%)
100 metres
Pts. 0 (0.0%)
Total Pts. 24008

Dop Filter = 100.0
Rej. = 0 (0.0%)

F1 -> Hz Traj
F2 -> Zoom In/Out
F3 -> Alt Variation
F4 -> Hz Variation
F5 -> Dop Filter
```

```
Radius = 100 m
Rings = 25 m
Max Dev = 92.8 m
Validation -> YES

Positioning Stats.
0 metres
Pts. 2896 (84.3%)
25 metres
Pts. 355 (10.3%)
50 metres
Pts. 165 (4.8%)
75 metres
Pts. 18 (0.5%)
100 metres
Pts. 0 (0.0%)
Total Pts. 3434

Dop Filter = 100.0
Rej. = 0 (0.0%)

F1 -> Hz Traj
F2 -> Zoom In/Out
F3 -> Alt Variation
F4 -> Hz Variation
F5 -> Dop Filter
```

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STR-1 PLOT -1:

STR-1 PLOT-2