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BPF8089-01SC6

The STA8089 and STA8090 companion chip

Simplify PCB designs with our integrated RF front-end and easily make your STA8089/90 LNA input robust to ESD system-level

Our BPF8089-01SC6 is designed to achieve the three functions required for an antenna front-end:

- a matching network to adapt the LNA input to 50 Ohm
- transient voltage suppressors (TVS) made to resist the stress levels specified in IEC 61000-4-2
- a band pass filter to reject frequencies out of the 1559 to 1610 MHz range.

The BPF8089-01SC6 replaces all the discrete components (up to 7) to be the only one between the LNA input and the antenna.

KEY FEATURES

- All-in-one RF front-end for simple, cost-effective designs
- System-level protection of LNA inputs against ESD on antenna connector
- Companion chip for STA8089 and STA8090 (GNSS receivers).

KEY BENEFITS

- Single-chip solution embeds all the components for antenna matching and ESD protection in a SOT23-6L package
- Simplifies PCB design
- Reduces BOM costs
- Compatible with all satellite navigation systems.

KEY APPLICATIONS

- Automotive (Y version)
  - Telematics
- Industrial
  - Asset tracking
  - Smart farming
- Telecommunications
  - Radio base stations
- Consumer
  - GPS
  - Drones
  - Pet tracking

Differentiation and improvements

Compact solution

Embeds all the components for antenna matching and ESD protection in a SOT23-6L to simplify PCB design.

System compatibility

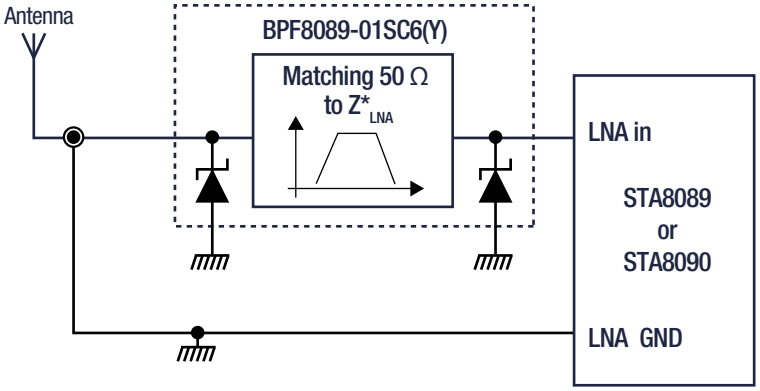
Compatible with GPS L1, QZSS L1, GLONASS IHL1, GALILEO-E1, COMPASS CPII/Beidou-E2, B1, B1-2, B1-BOC.

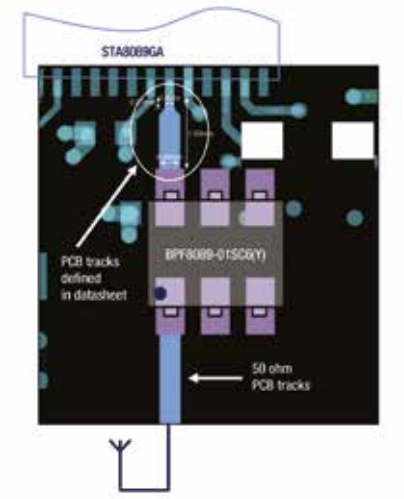
SOT23-6L package

Compatible with automatic visual inspection.

Diagram and pcb view

A single device for a cost-effective PCB design





Range

Order code	Grade	Bandwith	Tj max	Package	Associated GNSS receiver
BPF8089-01SC6	Industrial	1559 to 1610 MHz	125°C	SOT23-6L	STA8089FG - STA8089FGA STA8089G - STA8089GA STA8089GAT - STA8089GR STA8090EXG - STA8090EXGA STA8090FG - STA8090GA STA8090WG - STA8090WGR STA8090GAT
BPF8089-01SC6Y*	Automotive				

*Available Q2-2021

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