GSM/WCDMA/LTE 10-Linear Throw SP12T GPIO Antenna Switch Module – TQC9112

Features

- Wide Frequency Range: 0.4 to 2.7GHz
- Low Insertion Loss
- High Isolation and Linearity
- Integrated GSM harmonic Filter
- Integrated GPIO Interface
- 10 Transmit/receive ports, one GSM low band transmit port and one GSM high band transmit port
- Small module size: 2.5 x 3.2 x 0.76 mm
- Optimized for 50Ω system
- MSL3 260°C / RoHS / Halogen-free

Applications

- GSM/EDGE/WEDGE/LTE handsets
- GSM/EDGE/WEDGE/LTE wireless cards
- TD handsets

Product Description

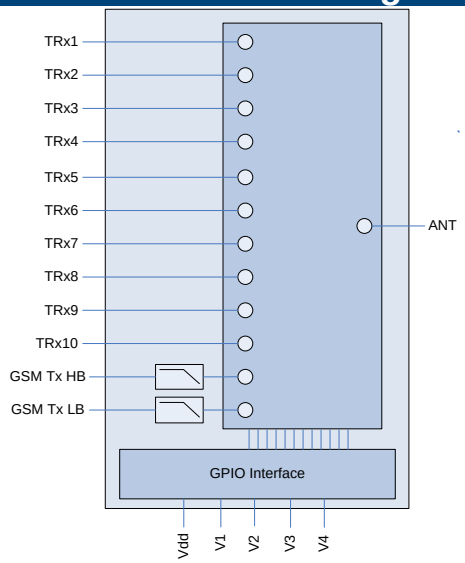
The TQC9112 is a fully matched Single Pole, Twelve Throw (SP12T) Antenna Switch Module with a General Parallel Interface Output (GPIO) that performs the function of GSM harmonic filtering and 3G/4G band switching.

Using state of the art switching technology, the TQC9112 provides low insertion loss, high linearity and allows a flexible single phone board layout to support up to 10 bands of WCDMA/LTE operation. The TQC9112 also exhibits an excellent triple beat ratio and $2^{nd}/3^{rd}$ order inter-modulation distortion performance.

Additionally, the small 2.5mm x 3.2mm package requires minimum board space and allows for high levels of device integration.

The TQC9112 is designed using SOI technology with CuFlip® assembly offering state of the art reliability, temperature stability and ruggedness.

Functional Block Diagram



Pin Out & Assignments

Pin#	Symbol	Description
1	TRx2	Transmit/Receive Linear Port
2	TRx1	Transmit/Receive Linear Port
3	TRx10	Transmit/Receive Linear Port
4	GND	Ground
5	TRx9	Transmit/Receive Linear Port
6	TRx8	Transmit/Receive Linear Port
7	GND	Ground
8	Tx2	DCS/PCS High power Transmit Port
9	Tx1	GSM/E-GSM High Power Transmit Port
10	GND	Ground
11	ANT	Antenna Port
12	GND	Ground
13	TRx7	Transmit/Receive Linear Port
14	TRx6	Transmit/Receive Linear Port
15	TRx5	Transmit/Receive Linear Port
16	TRx4	Transmit/Receive Linear Port
17	Vdd	Supply Voltage
18	V4	Logic Voltage
19	V3	Logic Voltage
20	V2	Logic Voltage
21	V1	Logic Voltage
22	TRx3	Transmit/Receive Linear Port
23	GND	Ground