X-SPDT (DP4T) SWITCH GaAs MMIC

■ GENERAL DESCRIPTION

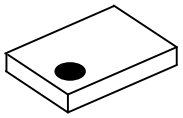
The NJG1692NB2 is a GaAs X (cross) – SPDT (DP4T) switch MMIC, which is designed for switching of balanced (differential) dual band filters.

The NJG1692NB2 features very low insertion loss, low control voltage and wide frequency coverage. The ESD protection circuits are integrated in the IC to achieve high ESD tolerance.

The NJG1692NB2 is assembled in a very small, lead-free, halogen-free, 1.55mm x 1.15mm, 10-pin EPCSP10-B2 package.

*) X-SPDT is a paired SPDT switch controlled synchronously. The X-SPDT includes two SPDT switches whose RF lines have a crossing inside the chip.

■ PACKAGE OUTLINE



NJG1692NB2

■ APPLICATIONS

Balanced filter switching application

LTE, UMTS, CDMA and GSM Multi-mode or Multi-band applications

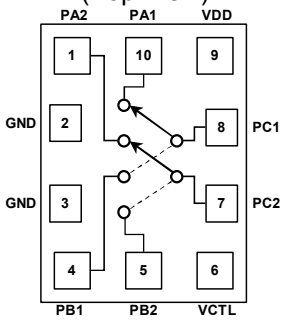
Mobile phone, Tablet PC, Data card, Router and others mobile device applications

■ FEATURES

- Low operation voltage V_{DD}=2.7V typ.
- Low control voltage $V_{CTL(H)}$=1.8V typ.
- Low insertion loss 0.30dB typ. @f=1.0GHz, P_{IN}=0dBm
  0.35dB typ. @f=2.0GHz, P_{IN}=0dBm
  0.40dB typ. @f=2.7GHz, P_{IN}=0dBm
- High isolation 28dB typ. @f=1.0GHz, P_{IN}=0dBm
  22dB typ. @f=2.0GHz, P_{IN}=0dBm
  19dB typ. @f=2.7GHz, P_{IN}=0dBm
- Small and thin package EPCSP10-B2 (Package size: 1.55x1.15x0.55mm)
- RoHS compliant and Halogen Free
- MSL1

■ PIN CONFIGURATION

(Top View)



Pin connection
1. PA2
2. NC (GND)
3. GND
4. PB1
5. PB2
6. VCTL
7. PC2
8. PC1
9. VDD
10. PA1

■ TRUTH TABLE

"H"=$V_{CTL(H)}$, "L"=$V_{CTL(L)}$

ON PATH	VCTL
PC1-PA1,PC2-PA2	H
PC1-PB1,PC2-PB2	L

NOTE: The Information on this datasheet will be subject to change without notice.

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