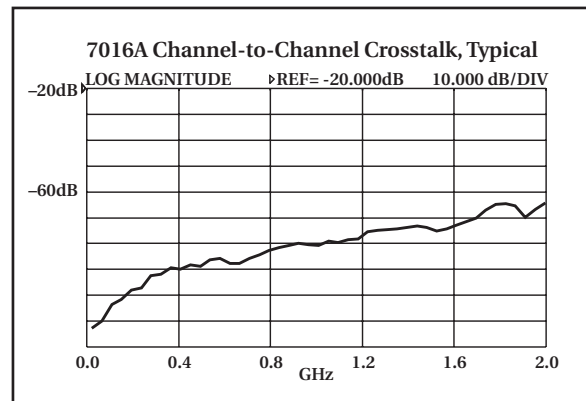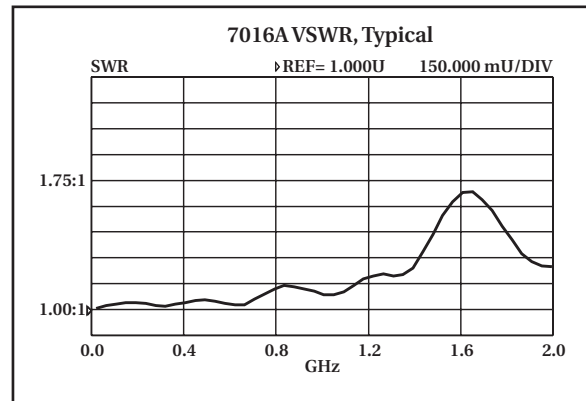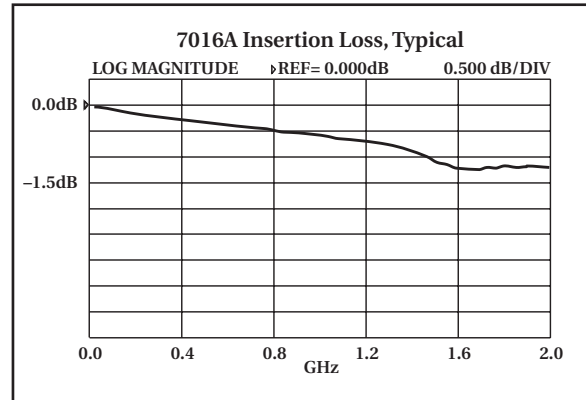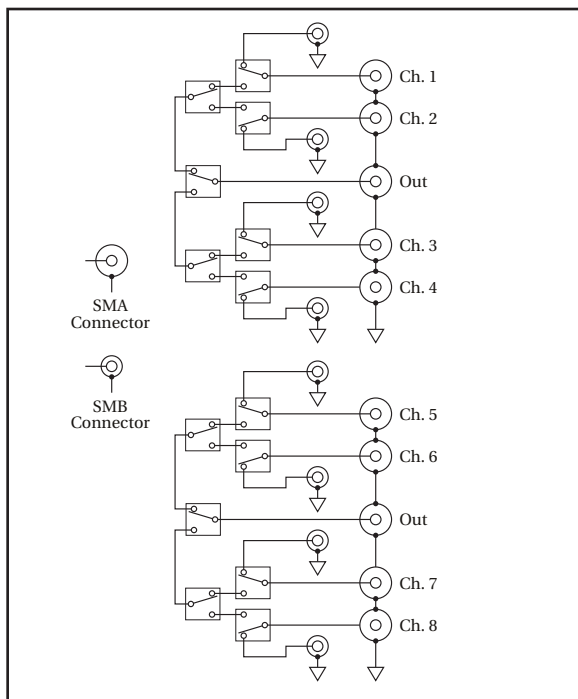# 7016A 50Ω 2GHz Multiplexer

**MULTIPLEXERS PER CARD:** 2 (with isolated ground).

**CHARACTERISTIC IMPEDANCE:** 50Ω nominal.

**CHANNELS PER MULTIPLEXER:** 4.

**CONTACT CONFIGURATION:** 1 pole Form A common shield.

**RELAY DRIVE CURRENT:** 120mA.

**CONNECTOR TYPE:** SMA.

**RECOMMENDED CABLE:** RG-223/U.

**TERMINATION:** User supplied 50Ω SMB termination (on unselected inputs).

**ACTUATION TIME:** 8ms.

**MAXIMUM VOLTAGE:** Any terminal (center or shield) to any other center or chassis: 30V.

**MAXIMUM CARRY CURRENT:** 0.5A.

**MAXIMUM CARRY POWER:** 10VA up to 900MHz, 3VA @ 2GHz.

**ISOLATION:**
  **Multiplexer to Multiplexer:** >1GΩ.
  **Center to Shield:** >1GΩ, <50pF.
  **Channel to Channel:** >100MΩ.

**RISE TIME:** <200ps.

**SIGNAL DELAY:** <3ns; channels matched to 50ps.

**CONTACT POTENTIAL:** <6µV.

**CONTACT RESISTANCE:** 0.5Ω.

**CONTACT LIFE:**  $3\times10^5$ @ 30V @ 10mA.
  $3\times10^5$ @ 900MHz, 1W.
  $1\times10^6$ @ cold switching.

**ENVIRONMENT: Operating:** 0° to 50°C; up to 35°C at 80% RH.
  **Storage:** –25°C to 65°C.

**EMC:** Conforms with European Union Directive 89/336/EEC.

**SAFETY:** Conforms with European Union Directive 73/23/EEC.

**AC PERFORMANCE:**

| For $Z_L = Z_S = 50\Omega$ | ≤10 MHz | ≤100 MHz | ≤500 MHz | ≤1 GHz | ≤2 GHz |
|---|---|---|---|---|---|
| **Insertion Loss (dB):** | <0.3 | <0.6 | <1.0 | <1.3 | <3.0 |
| **Crosstalk (dB):**[1] | | | | | |
| Channel-Channel | <–90 | <–80 | <–65 | <–55 | <–45 |
| Switch-Switch | <–90 | <–80 | <–70 | <–65 | <–45 |
| **VSWR** | <1.06 | <1.1 | <1.2 | <1.6 | ≤1.9 |

[1] Specification assumes 50Ω termination.



7016A Insertion Loss, Typical



7016A VSWR, Typical



7016A Channel-to-Channel Crosstalk, Typical

**TYPICAL:** Typical but not warranted parameter, intended to provide useful information for switch application.



SMA Connector

SMB Connector