MULTI-MIX® MICROTECHNOLOGY

DLL-048R-2.14G
DELAY LINE

PRELIMINARY REV: 003, 10/18/04

TECHNICAL DESCRIPTION

MULTI-MIX DELAY LINES



FEATURES
- 2110 - 2170 MHz
- LOW LOSS
- LOW VSWR
- SURFACE MOUNT
- LOW COST

APPLICATIONS
- WCDMA
- UMTS
- BASESTATION POWER AMPLIFIER LINEARIZATION NETWORKS
  - FEED FORWARD
  - PRE-DISTORTION
- ADAPTIVE INTERFERENCE CANCELLATION

The DLL-048R-2.14G, a member of the Multi-Mix® DLL family of delay lines, provides a mean delay of 4.85 nS in the UMTS band and features low insertion loss and low VSWR. The DLL-048R-2.14G exhibits excellent phase linearity and amplitude flatness over the 2110 - 2170 MHz frequency range. The Multi-Mix DLL-048R-2.14G is intended for use in power amplifier linearization networks such as feedforward and predistortion.

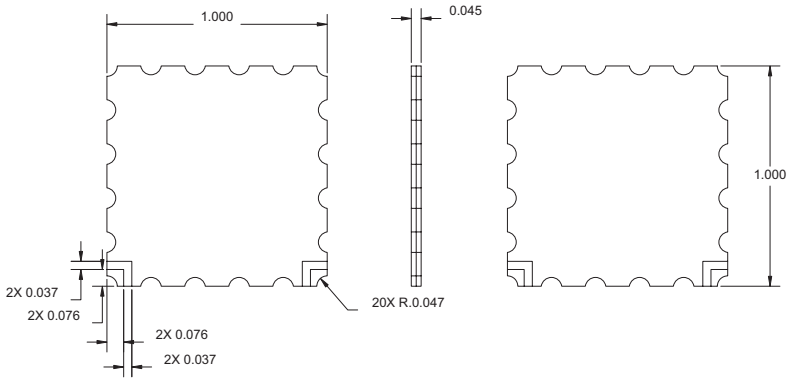
DLL delay lines are fusion bonded multilayer stripline structures. The DLL series offers an excellent alternative to expensive coaxial and delay filter structures. The fusion bonding process yields a homgeneous monolithic dielectric structure with reliability, ruggedness and electrical and thermal performance that is superior to conventional adhesive bonding techniques.

GENERAL SPECIFICATIONS

FREQUENCY RANGE MHz	MEAN DELAY* (nS)	PHASE DEVIATION (DEGREES MAX)	AMPLITUDE FLATNESS (dB p-p)	
2110 - 2170	4.85 ± 0.1	± 1.0	0.1	
RETURN LOSS (dB MIN)	**INSERTION LOSS** (dB MAX)	**POWER HANDLING** (WATTS)	**RF INTERFACE**	**SIZE/OUTLINE** (Inches - l,w,h)
20	3.0	45	Surface Mount	1.0 x 1.0 x 0.045

Specifications are based upon unit mounted on printed circuit board with 50 Ohm nominal impedance.
*Mean delay refers to the group delay of the applied input signal through the network. The specified tolerance relates to unit-unit group delay variation.

PACKAGE OUTLINE



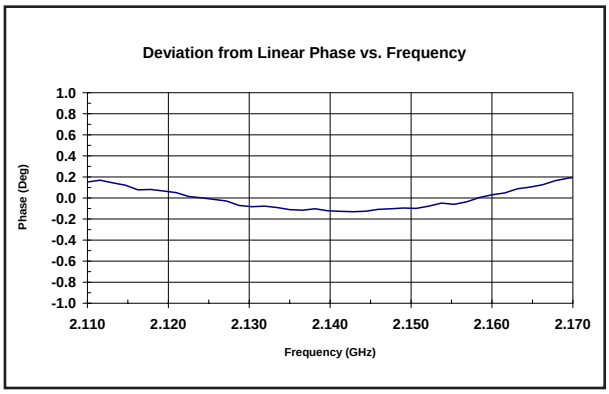
THE MULTI-MIX MICROTECHNOLOGY® GROUP IS ISO 9001:2000 REGISTERED

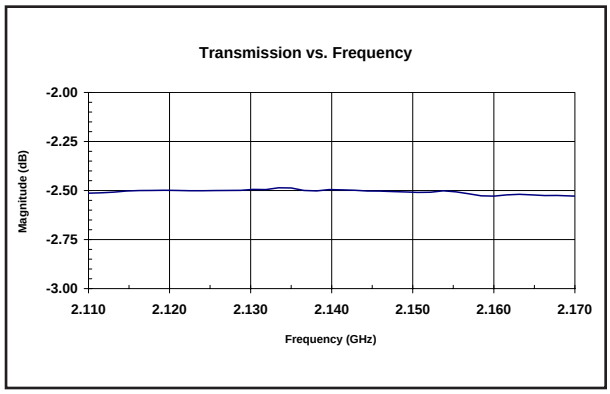
FM Approvals Quality System Registration

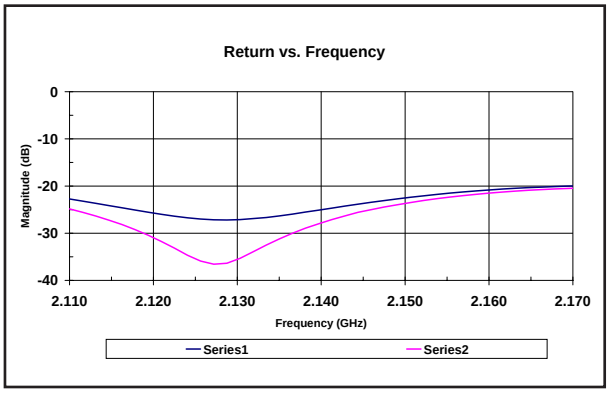
U.S. Patent 6,099,677 and other Patents Pending.

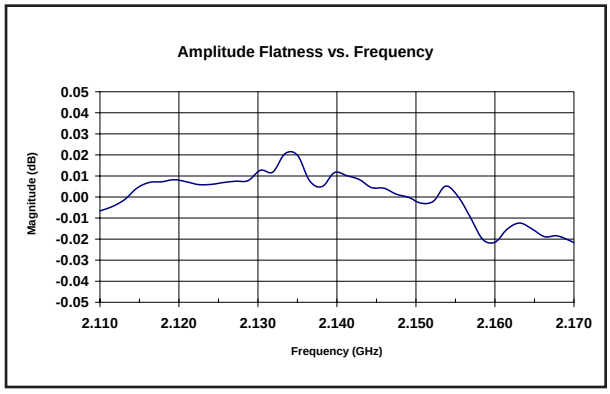
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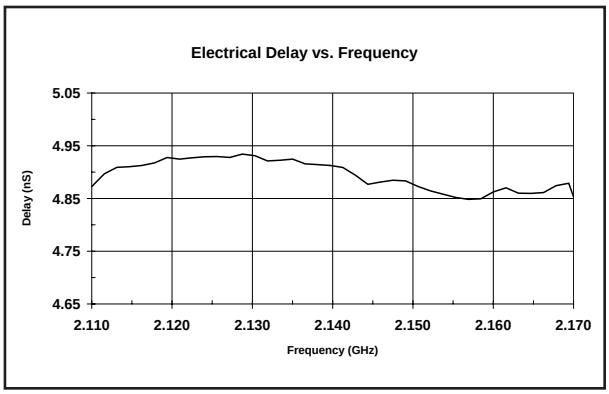
TYPICAL PERFORMANCE



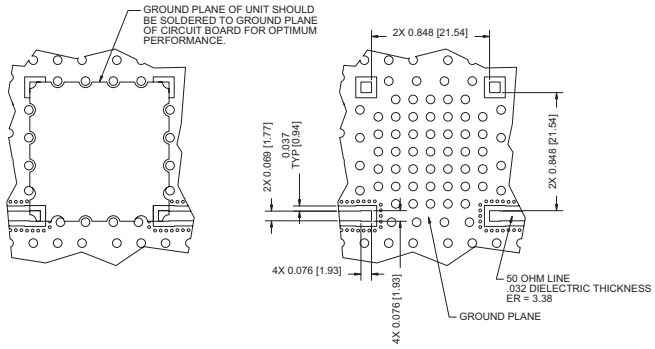








MOUNTING CONFIGURATION



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