

# Acumos, Inc.

PRELIMINARY

# CD01/CD02

## Custom Switch Array

### CMOS-DMOS Custom Switch Array

The CD01/02 custom switch arrays are gate array structures that have been designed for analog switching applications. The chips contain both uncommitted DMOS and CMOS transistors. Analog switching channels are made by combining the CMOS interface logic and level shifters and the DMOS transistors into switches.

A complete switching channel accepts either TTL or CMOS logic levels. It does logic manipulation and voltage conversion to the proper level for switch control. Breakdown voltage is specified at 36 volts for the entire array. With this the device can control analog signals over 30 volts peak-to-peak.

The ability to customize a switching channel allows the user to specify the switch format needed to do a particular job. "T", SPDT, DPDT, NO, NC, make-before-break, break-before-make, etc. are all possible with these arrays.

### High Frequency Switching

The low interelectrode capacitance of lateral DMOS gives the switches used in these arrays the ability to control high frequencies. Depending on the switch structure and pin out - 65 db "off" isolation at 100 MHz is possible. The lower capacitance also reduces the amount of charge transfer during switching.

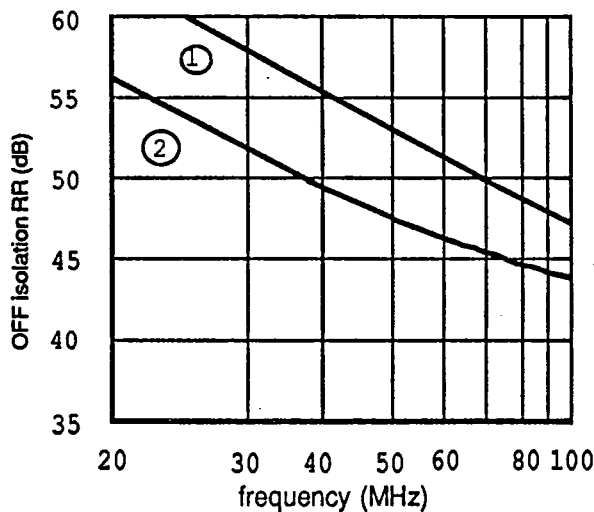
### FEATURES:

- Controls high frequency signals
- Off isolation 65 db at 100 MHz
- Uncommitted array of Digital logic and Analog switches
- CMOS/DMOS monolithic gate array chip
- 36 volt breakdown
- Low "on" resistance - 50 ohm

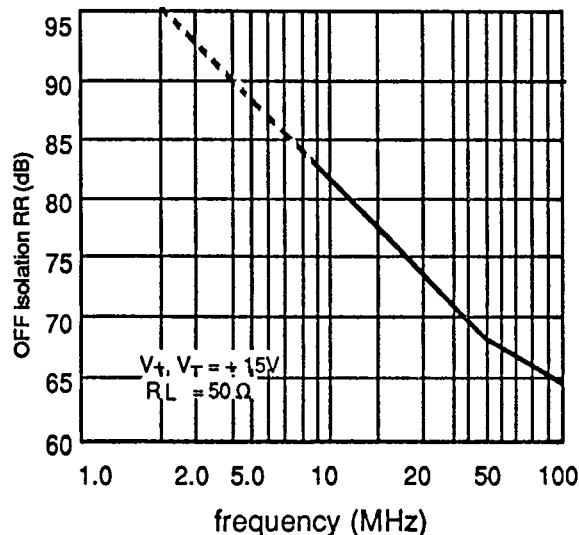
### Array Components

	CMOS Equivalent Gate	DMOS Transistor
CD01	30	6
CD02	100	20

### Off Isolation Rejection Ratio vs Frequency

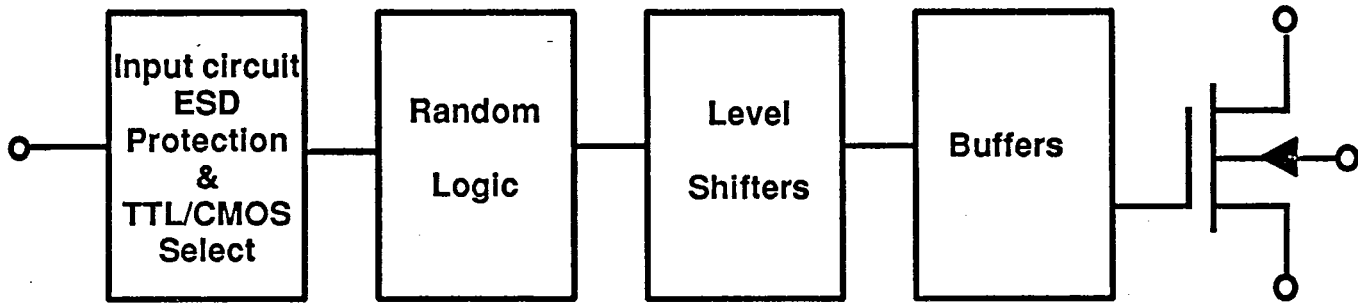


- ① Measured with output leads shielded
- ② Measured using adjacent output leads

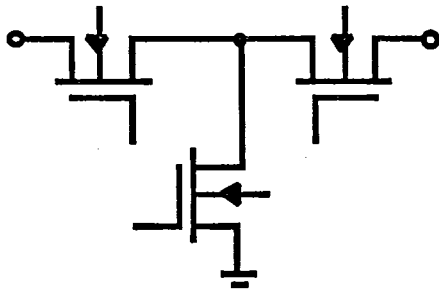


"T" switch configurations

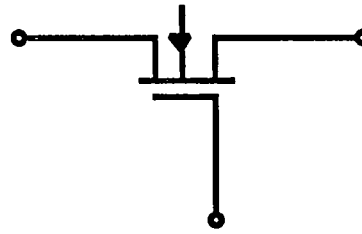
# C-DMOS Switch Array



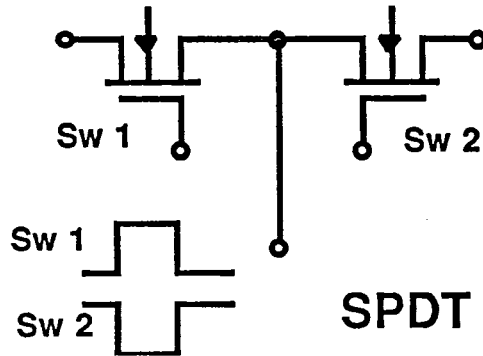
## Typical Switching Channel



"T" Switch



SPST



SPDT

**Acumos, Inc.**

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