# .— SenarioTek

## FlexMatrix Series

# **Differential RF Switch Matrix Family**

Reduce Your Signal Integrity Testing Complexity & Improve Reliability



The FlexMatrix Differential RF Switch Matrix Series offers dual one by 4, 8, 12, 16 or 32 port solutions to speed time-to-market for products using the latest standards such as PCI Express, IEEE 1394, USB 3.0, InfiniBand and gigabit Ethernet. The Differential Series offers high performance, including delay matching for transmitter measurements as low as 2 picoseconds at the DUT interface. Each switch matrix contains on-board internal memory providing the ability to conveniently de-embed the nominal amplitude and phase delay of each differential pair. With products from DC up to 40 GHz, the Differential Series enables high-speed designers to accelerate the development of both today's standards and future standards.



#### **REQUEST A QUOTE**

- Delay matching to ± 1 ps
- Frequencies up to 40 GHz
- Easy de-embedding with onboard correction files
- Fast delivery, no NRE

#### **Key Benefits:**

- Minimize path delay across differential pairs
- Achieve test system-to-test system repeatability with a common test platform
- Fully documented and supported

#### **Key Features:**

- Available in frequencies from DC to 6, 26.5 or 40 GHz
- Dual 1 by 4, 8, 12, 16, or 32 ports
- Over 10 million switching cycles for un-terminated (2.5 million for terminated)
- Output ports delay matched in pairs to ± 1.0 ps (optional across all paths)
- Optional integrated 36" cables with delay match (pairs) to ± 2.0 ps at DUT interface
- Optional strain relief cable system offers enhanced structural integrity and measurement stability
- Optional terminated receive path input ports
- Optional rack mount kit
- Guaranteed on-time delivery, 16 weeks ARO typical
- Three-year standard warranty

### **Easy Remote Control Interface:**

- SCPI compatible switch commands
- Switch lifecycle counter
- Switch path queries
- Intuitive switch/path control
- Available with LAN, GPIB or USB interface

|                                     | 6 GHz         | 26.5 GHz      | 40 GHz            |
|-------------------------------------|---------------|---------------|-------------------|
| VSWR                                | 1.4:1         | 2:1           | 2.1:1             |
| Insertion Loss (dB)                 | 0.5           | 1.5           | 3                 |
| Isolation (dB)                      | 90            | 70            | 60                |
| Repeatability (dB)                  | ± 0.06 Max    | ± 0.06 Max    | ± 0.1 Max         |
| Max Hot Switch Input Power (W)      | 1             | 1             | 1                 |
| Individual Switch Speed (ms)        | 15            | 15            | 15                |
| Switching Life Cycle (Unterminated) | 10 Milion     | 10 Milion     | 2.5 Milion        |
| Switching Life Cycle (Terminated)   | 2.5 Million   | 2.5 Million   | 2.5 Million       |
| Connector Type                      | Precision SMA | Precision SMA | Precision 2.92 mm |
| Impedance                           | 50 Ω          | 50 Ω          | 50 Ω              |

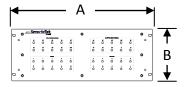
#### **Differential Switch Matrix Models**

(More configurations available and typically will not require NRE or extended delivery)

| Frequency<br>Range | # of Output<br>Ports/Chan | Model #<br>(Non-terminated) | Model #<br>(Terminated) |
|--------------------|---------------------------|-----------------------------|-------------------------|
| DC - 6.0 GHz       | 4                         | DF010406                    | DF010406T               |
|                    | 8                         | DF010806                    | DF010806T               |
|                    | 12                        | DF011206                    | DF011206T               |
|                    | 16                        | DF011606                    | DF011606T               |
|                    | 32                        | DF013206                    | DF013206T               |
| DC - 26.5 GHz      | 4                         | DF010426                    | DF010426T               |
|                    | 8                         | DF010826                    | DF010826T               |
|                    | 12                        | DF011226                    | DF011226T               |
|                    | 16                        | DF011626                    | DF011626T               |
|                    | 32                        | DF013226                    | DF013226T               |
| DC - 40.0 GHz      | 4                         | DF010440                    | DF010440T               |
|                    | 8                         | DF010840                    | DF010840T               |
|                    | 12                        | DF011240                    | DF011240T               |
|                    | 16                        | DF011640                    | DF011640T               |
|                    | 32                        | DF013240                    | DF013240T               |

## **Differential Series Physical Dimensions**

| Dimension | 4U<br>(Up to 16 Ports) | 6U<br>(Up to 32 Ports) |
|-----------|------------------------|------------------------|
| Α         | 19"                    | 19"                    |
| В         | 7"                     | 10.5"                  |
| Depth     | 20"                    | 20"                    |



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