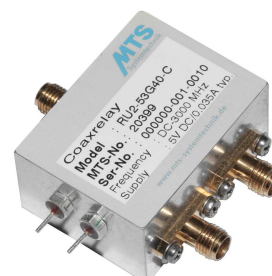


## Coaxial Relay RU2-53G40-C

MTS-No.: 20399

### Short description

The SPDT Relay model RU2-53G40-C is used to switch various signals. It was developed to work at frequency ranges between DC and 3000 MHz. This switch fits for most of mobile applications (GSM, DECT, UMTS, Bluetooth, etc.) and for satellite communication (L-Band).



### Technical data:

#### 1 RF-specifications:

|                                                                                          |                                                                                            |
|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| 1.1 Relay type                                                                           | SPDT                                                                                       |
| 1.2 Impedance                                                                            | 50 Ω                                                                                       |
| 1.3 Input power<br>(cold switching)                                                      | 10 W max. (2 A DC max;<br>20 V DC/AC max.)                                                 |
| 1.4 Frequency range                                                                      | DC - 3000 MHz<br>(usable up to 3800 MHz)                                                   |
| 1.5 Switching time max.                                                                  | 10 ms (max. 50 operations / s)                                                             |
| 1.6 Life cycles                                                                          | 10 000 000 cycles                                                                          |
| 1.7 VSWR In / Out<br>< 3000 MHz                                                          | 1,15 : 1 typ.; 1,35:1 max.<br>@ switched connection (open<br>connection is not terminated) |
| 1.8 Insertion loss<br>< 1000 MHz<br>@ 2000 MHz<br>< 2000 MHz<br>@ 3000 MHz<br>< 3000 MHz | 0,15 dB max.<br>0,2 dB typ.<br>0,3 dB max.<br>0,3 dB typ.<br>0,4 dB max.                   |
| 1.9 Isolation<br>< 1000 MHz<br>< 2000 MHz<br>< 3000 MHz                                  | 62 dB typ., 58 dB min.<br>50 dB typ., 45 dB min.<br>40 dB typ., 35 dB min.                 |

#### 2 Connections:

|                    |                                                            |
|--------------------|------------------------------------------------------------|
| 2.1 RF-input       | 1x SMA female                                              |
| 2.2 RF-outputs     | 2x SMA female                                              |
| 2.3 Voltage supply | 5 V DC feedthrough filter and<br>ground feedthrough filter |

#### 3 General specifications:

|                  |                                               |
|------------------|-----------------------------------------------|
| 3.1 Power supply | 5 V DC ± 5 %<br>(12 V or 24 V also available) |
|------------------|-----------------------------------------------|

|                                                    |                                                                                      |
|----------------------------------------------------|--------------------------------------------------------------------------------------|
| 3.2 Power consumption<br>primarily                 | 0,035 A typ. @ 5 V DC                                                                |
| 3.3 Configuration                                  | If switch is out of order, one path<br>is closed, all other contacts are<br>floating |
| 3.4 Control input                                  | Floating (one side on a common<br>line)                                              |
| 3.5 Operating<br>temperature                       | 0 °C - +50 °C                                                                        |
| 3.6 Reference<br>temperature for<br>specifications | +25 °C                                                                               |
| 3.7 Dimensions<br>(without connections)            | 40 mm x 30 mm x 19mm<br>(L x W x H)                                                  |
| 3.8 Case style                                     | Milled aluminium enclosure                                                           |
| 3.9 Colour                                         | Colourless anodized                                                                  |
| 3.10 Weight                                        | Approx. 0,1 kg                                                                       |

#### 4 Delivered parts:

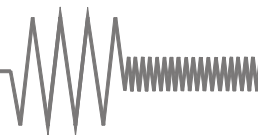
Coaxial relay RU2-53G40-C  
Drawing and connector pin assignment

#### 5 Comments:

|                |           |
|----------------|-----------|
| Warranty       | 12 months |
| RoHS-compliant | Yes       |

#### 6 Recommended accessories:

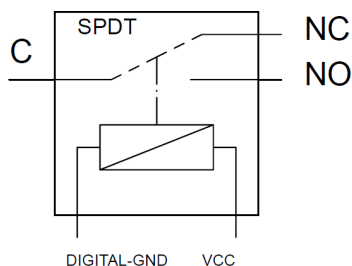
Control cards  
RF-cables



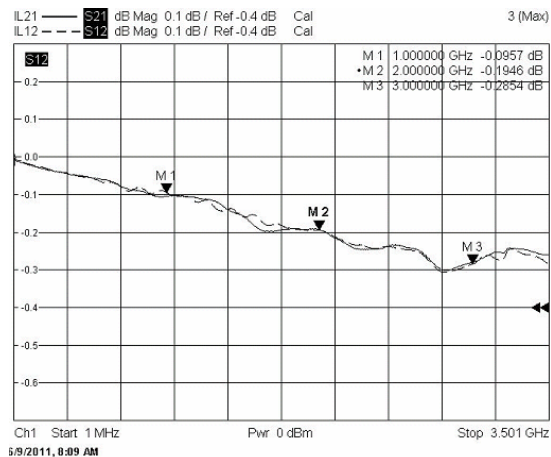
# Coaxial Relay RU2-53G40-C

MTS-No.: 20399

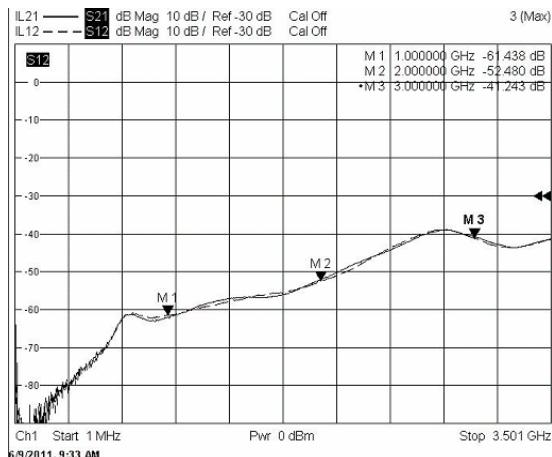
## Diagrams:



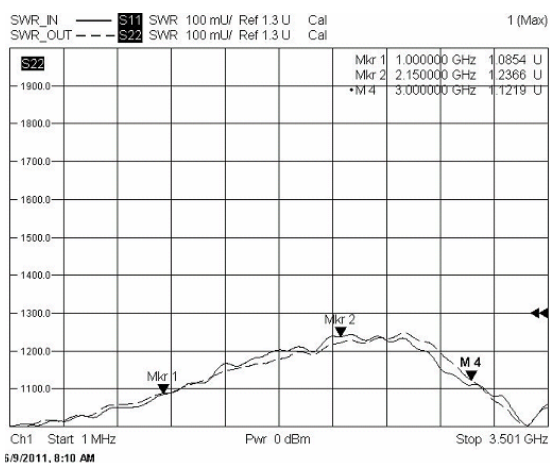
## Switching diagram



Insertion loss from common to NC and NO



Isolation from NC to NO



VSWR of switched path