



Indoor RF passives

FISO Isolators **FISO RANGE**

FISO products are Fully Isolated System Outlets. Frequency range is up to 1218 MHz depending on the model. The outlets are easy to install and feature ultra low leakage current.

Features

- Frequency range up to 1218 MHz, Docsis 3.1 compliant
- Class A screening effectiveness
- Outstanding RF performance
- Ultra low leakage current
- Nickel Tin plated Input (all contacts)
- Wide range of models

INDOOR RF PASSIVES / FISO-xx SERIES

ELECTRICAL SPECIFICATIONS						
Frequency (MHz)	FISO-10	FISO-20	FISO-22	FISO-30	FISO-32	FISO-33
INSERTION LOSS (dB, Max.) - IN TO OUT						
5 - 65	0.7	-	4.0	-	-	6.5
65 - 470	0.7	-	4.3	-	-	6.6
470 - 600	0.7	-	4.6	-	-	6.7
600 - 862	0.7	-	4.6	-	-	6.7
862 - 1006	0.7	-	4.9	-	-	7.0
1006 - 1218	1.0	-	5.4	-	-	7.8
INSERTION LOSS (dB, Max.) - IN TO DATA						
5 - 65	-	2.0	-	4.9	2.4	-
85 - 87.5	-	4.9	-	-	4.8	-
87.5 - 550	-	4.9	-	8.6	4.8	-
550 - 862	-	5.3	-	8.6	4.8	-
862 - 1006	-	5.3	-	9.4	5.1	-
1006 - 1218	-	-	-	-	5.5	-
INSERTION LOSS (dB, Min.) - IN TO RTV						
5 - 65	-	30.0	-	30.0	30.0	-
INSERTION LOSS (dB, Max.) - IN TO RTV						
85 - 87.5	-	4.9	-	-	8.5	-
87.5 - 862	-	4.9	-	4.8	8.5	-
862 - 1006	-	4.9	-	5.0	8.8	-
1006 - 1218	-	-	-	-	9.3	-
ISOLATION (dB, Min.) - OUT TO OUT or RTV TO DATA						
5 - 10	-	35.0	22.0	30.0	22.0	22.0
10 - 65	-	35.0	33.0	30.0	33.0	33.0
65 - 85	-	-	24.0	-	24.0	24.0
85 - 87.5	-	14.0	24.0	-	24.0	24.0
87.5 - 150	-	14.0	24.0	20.0	24.0	24.0
150 - 862	-	19.0	24.0	20.0	24.0	24.0
862 - 1006	-	19.0	22.0	20.0	22.0	22.0
1006 - 1218	-	-	18.0	-	18.0	18.0
RETURN LOSS (dB, Min.) - IN / OUT						
5 - 15	16.0	18.0	18.0	18.0	18.0	18.0
15 - 65	22.0 ⁽¹⁾	18.0	18.0	18.0	18.0	18.0
65 - 85	22.0 ⁽¹⁾	-	18.0 ⁽¹⁾	-	18.0 ⁽¹⁾	18.0 ⁽¹⁾
85 - 87.5	22.0 ⁽¹⁾	18.0	18.0 ⁽¹⁾	-	18.0 ⁽¹⁾	18.0 ⁽¹⁾
87.5 - 862	22.0 ⁽¹⁾	18.0	18.0 ⁽¹⁾	18.0 ⁽¹⁾	18.0 ⁽¹⁾	18.0 ⁽¹⁾
862 - 1006	22.0 ⁽¹⁾	18.0	18.0 ⁽¹⁾	18.0 ⁽¹⁾	18.0 ⁽¹⁾	18.0 ⁽¹⁾
1006 - 1218	22.0 ⁽¹⁾	-	18.0 ⁽¹⁾	-	18.0 ⁽¹⁾	18.0 ⁽¹⁾
RETURN LOSS (dB, Min.) - DATA						
5 - 65	-	15.0	-	18.0	18.0	-
85 - 87.5	-	15.0	-	-	18.0 ⁽¹⁾	-
87.5 - 862	-	15.0	-	18.0 ⁽¹⁾	18.0 ⁽¹⁾	-
862 - 1006	-	15.0	-	18.0 ⁽¹⁾	18.0 ⁽¹⁾	-
1006 - 1218	-	-	-	-	18.0 ⁽¹⁾	-
RETURN LOSS (dB, Min.) - RTV						
85 - 87.5	-	14.0	-	-	18.0 ⁽¹⁾	-
87.5 - 862	-	14.0	-	18.0 ⁽¹⁾	18.0 ⁽¹⁾	-
862 - 1006	-	14.0	-	18.0 ⁽¹⁾	18.0 ⁽¹⁾	-
1006 - 1218	-	-	-	-	18.0 ⁽¹⁾	-



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INDOOR RF PASSIVES / FISO-xx SERIES

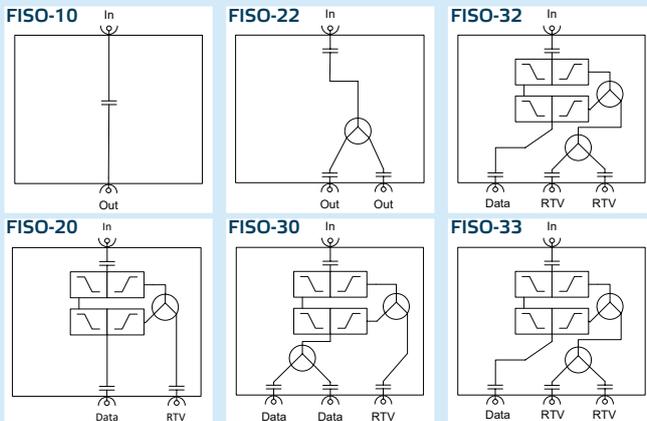
GENERAL SPECIFICATIONS			
Frequency Range	5 - 1006 MHz ⁽²⁾ or 5 - 1218 MHz ⁽³⁾	Nominal Impedance	75 Ohm
Operating Temperature Range ⁽⁴⁾	0 to +40 °C	Product approval	CE
Dimensions	20 x 60 x 38 mm	Weight	± 0.1 kg
Surge Immunity Test ⁽⁵⁾	1 kV, 1.2/50 µs	Intermodulation distortion (dBc, Min.) ⁽⁶⁾ f1+f2	-122.0 ⁽⁶⁾ -105.0 ^{(b)(c)}
Electromagnetic Compatibility (dB, Min.) ⁽⁷⁾	5 - 300 300 - 470 470 - 950 950 - 1218		85.0 80.0 75.0 70.0
Safety Isolation ⁽⁸⁾	2120 VDC	Inner conductor Input to Inner conductor Output Leakage current	≤ 0.7 mA, ≥ 1 minute
	230 VAC RMS, 50/60 Hz	Inner conductor Input to Inner conductor Output Leakage current	≤ 2.0 mA RMS (FISO-10) ≤ 8.0 mA RMS (all others)
Materials	Housing		Zinc + Nickel plating
	Connectors	INPUT: F-female contact spring OUTPUT: F-female contact spring	Brass + NiSn plating PB + NiSn plating Brass + Nickel plating PB + Nickel plating

NOTES

- At F ≥ 40 MHz -1.5 dB/oct.
- Applies to FISO-20 and 30
- Applies to FISO-10, 22, 32 and 33
- Temperature range within which the device will be within specifications.
- Surge voltage according to IEC 61000-4-5, EMC (class 2, level 2) applied between the inner and outer conductor of each port
- Two carriers (60 & 65 MHz), applied to each port, @ 120 dBµV
 - No surge
 - Measured after 1 pulse of 1 kV (1.2/50 µsec) have been applied to each port. In accordance with IEC 60728-4
 - Not applied to FISO-22 and 33
- EMC exceeding Class A, according to IEC 60728-2 2012, EMC (except in 5 - 10 MHz where we can Class B) (EN 50083-2 2012)
- According to IEC-60728-11 2007, Safety

BLOCK DIAGRAMS

PICTURES



ORDERING INFORMATION

FISO-20	Fully Isolated System Outlet (isolator), 1 x DATA port + 1 x RTV port, 5-1006 MHz
FISO-30	Fully Isolated System Outlet (isolator), 2 x DATA port + 1 x RTV port, 5-1006 MHz
FISO-10	Fully Isolated System Outlet (isolator), 1-port, 5-1218 MHz
FISO-22	Fully Isolated System Outlet (isolator), built in 2-way Splitter, 5-1218 MHz
FISO-32	Fully Isolated System Outlet (isolator), 2 x DATA port + 1 x RTV port, freq. split 65/85 MHz, 5-1218 MHz
FISO-33	Fully Isolated System Outlet (isolator), built in 3-way Splitter, 5-1218 MHz
FPC	FISO Plastic cover

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FISO-xx_20211109

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