1.8 GHz GALVANIC ISOLATORS [GxW]

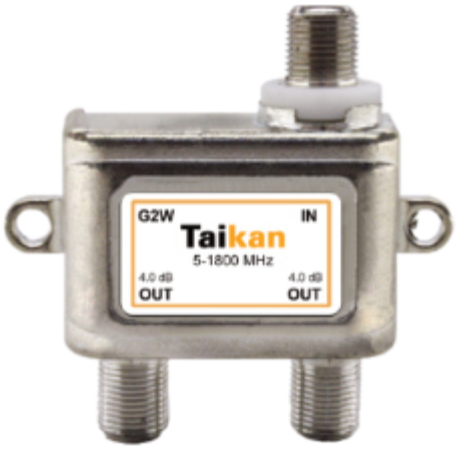
Cable Products, Drop Passives

Taikan ESTD. 1973

Description

Taikan's galvanic isolator series are used to separate the subscriber's network equipment from the CATV network system as well as protect the network equipment from electrical hazards (i.e. voltage surges or lightning).

It is an effective and practical solution to prevent various types of hazardous surges from damaging Customer Premise Equipment (CPE).



Features

- Screening acc. to EN 50083-2 Class A *
- Safety Requirements acc. to IEC / EN60 728-11:2010 ***
- 5-1800 MHz bandwidth
- 1-Port and 2-Port splitter design
- Protection of subscriber's Premise Network Equipment against electrical hazards caused by power surges, lightnings and variabilities in local currents
- Superior isolation and return loss
- 2 kV DC Double Isolation Protection
- IEEE C62.41-1991 Category A3 Ring Wave, 6kV, 200A on all ports
- Compact design with zinc alloy die-cast housing & tin-plated soldered back cover
- 1 GND block with screw for 6mm² GND wire

General Specifications

Voltage Isolation:	2 kV DC
F Connector:	SCTE Compliant IPS-SP 400
Operation Temperature:	-40 to 60 °C

Ordering Information

G [x] W - [x]

- [x]: ***T*** *for Tubular Housing (Leave Blank for Standard Housing)*
- [x]: ***1-***, ***2-***, *or* ***3-****Port*

Model Number	*Inner Box*	*Standard Carton*	*Carton Weight*
G1W	30 pcs	300 pcs	20 kg / 44 lbs
G2W	30 pcs	300 pcs	21 kg / 46 lbs
G3W	30 pcs	300 pcs	22 kg / 48 lbs
G1W-T	30 pcs	300 pcs	20 kg / 44 lbs

CE RoHS compliant

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Galvanic Isolation

acc. to EN 60728-11:2017 point 10 : at 2120 VDC ≥ 1minute, Leakage current ≤ 0.7 mA; at 230 VAC 50/60 Hz, Leakage current ≤ 2.0 mA RMS
(test environmental temperature 0 ~ 25 °C)

2120 VDC	Inner Conductor (Input Port) to Inner Conductor (Output Port)	≤0.7 mA
2120 VDC	Outer Conductor (Input Port) to Outer Conductor (Output Port)	≤0.7 mA
230 VAC	Inner Conductor (Input Port) to Inner Conductor (Output Port)	≤2.0 mA RMS
230 VAC	Outer Conductor (Input Port) to Outer Conductor (Output Port)	≤2.0 mA RMS

Insertion Loss (dB)

Frequency	DGIS-1 OUT1 Typ	DGIS-1 OUT1 Max	DGIS-2 OUT1 Typ	DGIS-2 OUT1 Max	DGIS-2 OUT 2 Typ	DGIS-2 OUT 2 Max	DGIS-2-HPF OUT TV Typ	DGIS-2-HPF OUT TV Max	DGIS-2-HPF OUT DATA Typ	DGIS-2-HPF OUT DATA Max
5-10 MHz	0.1	0.6	3.3	3.7	3.3	3.7	>40		3.3	3.7
10-40 MHz	0.1	0.4	3.3	3.9	3.3	3.9	>40		3.3	3.9
40-204 MHz	0.2	0.4	3.3	3.9	3.3	3.9	>40		3.3	3.9
204-258 MHz	0.2	0.4	3.3	3.9	3.3	3.9			3.3	3.9
258-470 MHz	0.2	0.4	3.3	3.9	3.3	3.9	3.8	4.3	3.3	3.9
470-862 MHz	0.4	0.7	4.0	4.3	4.0	4.3	4.2	4.5	4.0	4.3
862-1006 MHz	0.4	0.7	4.3	4.4	4.3	4.4	4.5	4.6	4.3	4.4
1006-1218 MHz	0.5	0.8	4.5	5.2	4.5	5.2	4.7	5.4	4.5	5.2
1218-1800 MHz	0.8	1.2	5.0	5.5	5.0	5.5	5.2	5.8	5.0	5.5

Return Loss

IN, OUT (dB)

Frequency	DGIS-1 OUT1 Min	DGIS-1 OUT1 Typ	DGIS-2 OUT1 Min	DGIS-2 OUT1 Typ	DGIS-2 OUT 2 Min	DGIS-2 OUT 2 Typ	DGIS-2-HPF OUT TV Min	DGIS-2-HPF OUT TV Typ	DGIS-2-HPF OUT DATA Min	DGIS-2-HPF OUT DATA Typ
5-10 MHz	18	20	18	20	18	20	18	20	18	20
10-470 MHz	18	20	18	20	18	20	18	20	18	20
470-862 MHz	18	20	18	20	18	20	18	20	18	20
862-1006MHz	18	20	18	20	18	20	18	20	18	20
1006-1218 MHz	16	18	16	18	16	18	16	18	16	18
1218-1800 MHz	12	14	12	14	12	14	12	14	12	14

Isolation

OUT - OUT (dB)

Frequency		DGIS-2 OUT1 Min	DGIS-2 OUT1 Typ	DGIS-2-HPF OUT TV Min	DGIS-2-HPF OUT TV Typ
5-10 MHz	-	20	25	≥40	
10-40 MHz	-	20	25	≥40	
40-204 MHz	-	20	25	≥40	
204-258 MHz	-	20	25	40 ~ 25	
258-470 MHz	-	20	25	20	25
470-862 MHz	-	22	25	22	25
862-1006 MHz	-	22	22	22	22
1006-1218 MHz	-	20	22	20	22
1218-1800 MHz	-	18	20	18	20

Intermodulation distortion*

all Ports

After 25 V Surge	0 dBµV / -120 dBc	≤10 dBµV / -110 dBc
After 1 kV Surge	0 dBµV / -120 dBc	≤10 dBµV / -110 dBc

Notes:

* Two carriers (60 & 65 MHz), Output to Input, @ 120dBuV, before surge
Two carriers (60 & 65 MHz), Output to Input, @ 120 dBuV, after 10 pulses (25 V/1.2 uS rise time/500 uS fall time) at all ports ;
Two carriers (60 & 65 MHz), Output to Input, @ 120 dBuV, after 1 pulse (1 KV/1.2 uS rise time/500 uS fall time) at all ports

Drop Passives - DGxV

Insertion Loss (dB)

Frequency	DGIS-1 OUT1 Typ	DGIS-1 OUT1 Max	DGIS-2 OUT1 Typ	DGIS-2 OUT1 Max	DGIS-2 OUT 2 Typ	DGIS-2 OUT 2 Max	DGIS-2-HPF OUT TV Typ	DGIS-2-HPF OUT TV Max	DGIS-2-HPF OUT DATA Typ	DGIS-2-HPF OUT DATA Max
5-10 MHz	0.1	0.6	3.3	3.7	3.3	3.7	>40		3.3	3.7
10-40 MHz	0.1	0.4	3.3	3.9	3.3	3.9	>40		3.3	3.9
40-204 MHz	0.2	0.4	3.3	3.9	3.3	3.9	>40		3.3	3.9
204-258 MHz	0.2	0.4	3.3	3.9	3.3	3.9			3.3	3.9
258-470 MHz	0.2	0.4	3.3	3.9	3.3	3.9	3.8	4.3	3.3	3.9
470-862 MHz	0.4	0.7	4.0	4.3	4.0	4.3	4.2	4.5	4.0	4.3
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1006-1218 MHz	0.5	0.8	4.5	5.2	4.5	5.2	4.7	5.4	4.5	5.2
1218-1800 MHz	0.8	1.2	5.0	5.5	5.0	5.5	5.2	5.8	5.0	5.5

Return Loss

IN, OUT (dB)

Frequency	DGIS-1 OUT1 Min	DGIS-1 OUT1 Typ	DGIS-2 OUT1 Min	DGIS-2 OUT1 Typ	DGIS-2 OUT 2 Min	DGIS-2 OUT 2 Typ	DGIS-2-HPF OUT TV Min	DGIS-2-HPF OUT TV Typ	DGIS-2-HPF OUT DATA Min	DGIS-2-HPF OUT DATA Typ
5-10 MHz	18	20	18	20	18	20	18	20	18	20
10-470 MHz	18	20	18	20	18	20	18	20	18	20
470-862 MHz	18	20	18	20	18	20	18	20	18	20
862-1006MHz	18	20	18	20	18	20	18	20	18	20
1006-1218 MHz	16	18	16	18	16	18	16	18	16	18
1218-1800 MHz	12	14	12	14	12	14	12	14	12	14

Isolation

OUT - OUT (dB)

Frequency	DGIS-1	DGIS-2 Min	DGIS-2 Typ	DGIS-2-HPF Min	DGIS-2-HPF Typ
5-10 MHz	-	20	25	≥40	
10-40 MHz	-	20	25	≥40	
40-204 MHz	-	20	25	≥40	
204-258 MHz	-	20	25	40 ~ 25	
258-470 MHz	-	20	25	20	25
470-862 MHz	-	22	25	22	25
862-1006 MHz	-	22	22	22	22
1006-1218 MHz	-	20	22	20	22
1218-1800 MHz	-	18	20	18	20

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all Ports

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Notes:

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Two carriers (60 & 65 MHz), Output to Input, @ 120 dBuV, after 10 pulses (25 V/1.2 uS rise time/500 uS fall time) at all ports ;
Two carriers (60 & 65 MHz), Output to Input, @ 120 dBuV, after 1 pulse (1 KV/1.2 uS rise time/500 uS fall time) at all ports