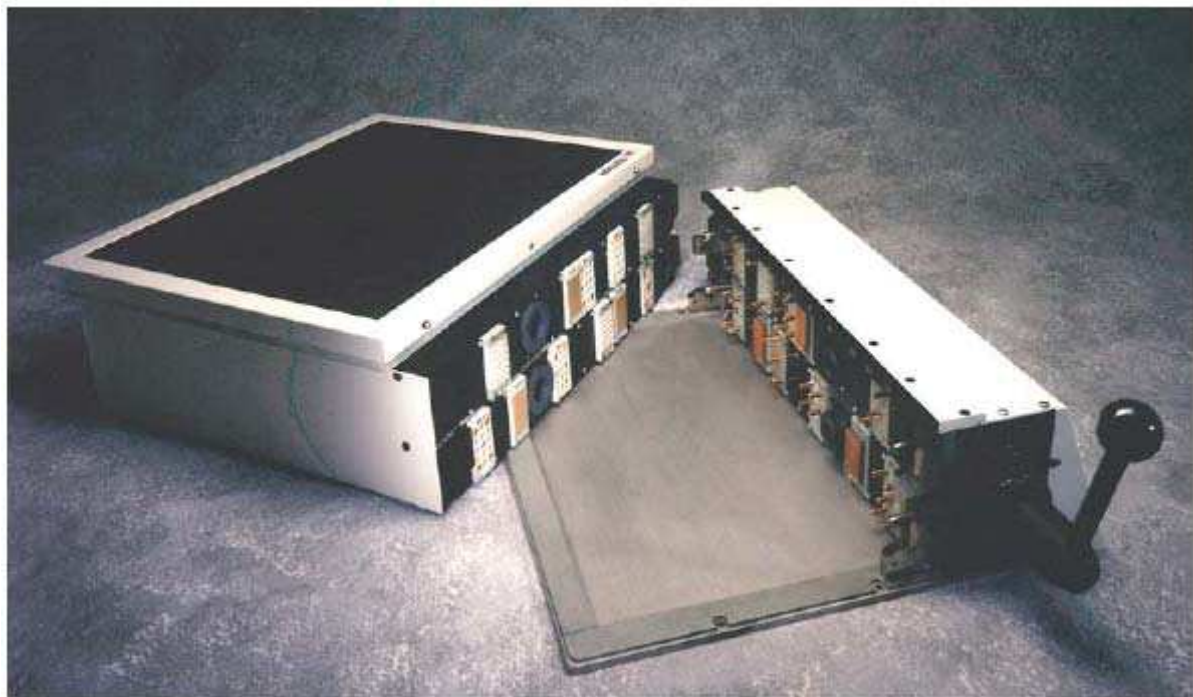


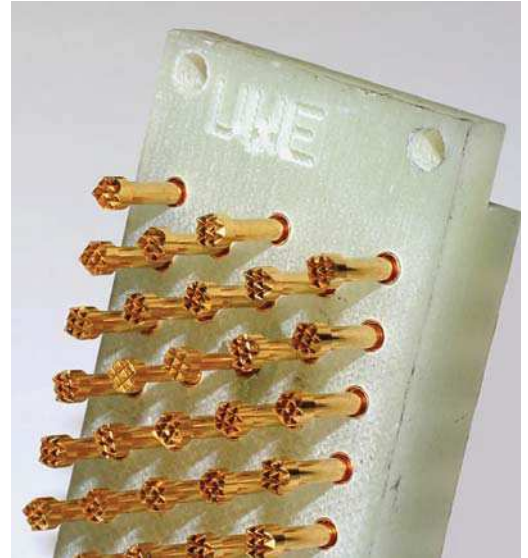
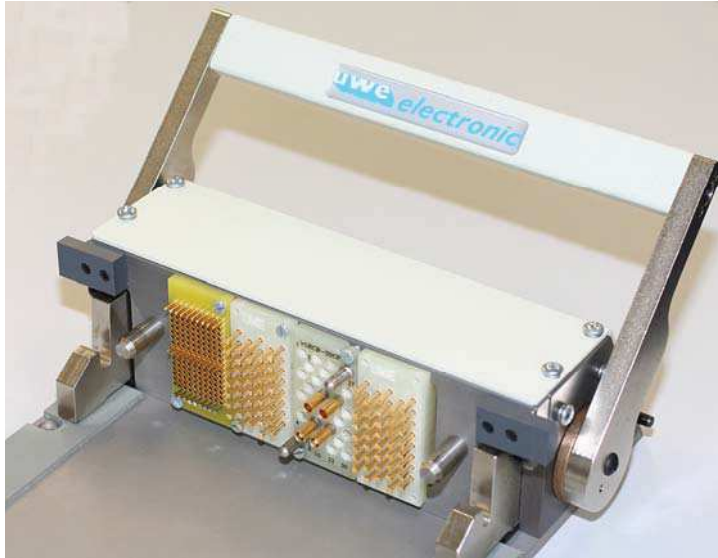
Your Partner for Test Fixtures and VG-Series Products

**Interface-Receiver/Fixture for the incircuit-
and functional Test
Vacuum- and mechanical Fixtures**



signal transfer (170 pins)
power transfer (13 / 24 / 32 pins for up to 40A)
coaxial transfer (3 different sizes)

VGR-4 Receiver, VGR12 Receiver, VGR24 Receiver



uwe *electronic* offers a wide variety of VG-Receiver for 4, 12 oder 24 VG-Interface-Blocks. From bench-top test applications to complete rack and stack solutions, we provide a reliable and economical test based mass interconnect.

VGR4 Receiver

The VGR4 accommodates up to 4 VG receiver blocks. The unit is exclusively configured for small bench-top test requirements. All block configurations are available for the VGR4 except the vacuum port module.

VGR12 Receiver

The VGR12 accomodates up to 12 VG receiver blocks. The unit is available in a benchtop (shown above) as well as a rack mount configuration. The VGR12 will accommodate any block configuration with a maximum of two vacuum port modules available.

VGR24 Receiver

The VGR24 comes in a benchtop as well as a rackmount configuration. The VGR24 will accommodate any block combination with a maximum of 2 vacuum port modules.



Interfaces / VG-Blocks

We offer different interfaces starting at the 4-block-receiver (fixture) up to a 24-block-receiver. We have the best **VG-interfaces for almost each application**.

We also have a huge variety of vacuum fixtures and mechanical fixtures. As the blocks are standardized regarding their fitting dimension, we provide a lot of combinations for the number of pins, current or coaxial connection.

Interfaces with 30 pins and 40 A, coaxial probes with 50Ω and 75Ω nominal impedance and blocks with up to 170 pins complete our portfolio.

Product	Connection	Description/Data sheet
Coaxial-blocks	4 pins	VGRCB-4C
	9 pins	VGRCB-9C
	13 pins	VGRCB-13C
	13 pins	VGRCB-13C75
Coaxial-/Power-blocks	13 pins	VGRCB-13CP
	15 pins	VGRCB-15CP
	15 pins	
	VGRCB-15CPF	
	22 pins	VGRCB-22CP
	24 pins	VGRCB-24CP
	24 pins	
	VGRCB-24CPF	
	30 pins	VGRCB-30CP
	32 pins	VGRCB-32CP
	32 pins	
	VGRCB-32CPF	
Koaxial-/Power-/ signal blocks	19 pins, 20 signal conductors	VGRCB-39CPS
Pneumatic blocks	13 pneumaticpins	VGRCB-13PNEU
Power blocks	32 pins	VGRCB-32P
Signal blocks	136 pins	VGRCB-136H
	170 pins	VGRCB-170H



VGRCB-4C VGFCB-4C

The VGR(F)CB-4C provides 4 coaxial contacts for signals up to 18 Ghz. All cable connections to the VGR(F)CB-4C blocks are made through SMA cable contacts providing for a variety of available coaxial cables. Two precision alignment pins per block ensure proper alignment. Two shoulder mounting screws per VGRCB-4C block allow the block to 'float' in the receiver. Blocks and contacts are sold separately.

Interface Receiver/Fixture Specifications

Block Specifications

Receiver Side Part Number	VGRCB-4C
Fixture Side Part Number	VGFCB-4C
Number of Alignment Pins	2
Number of Contacts	4
Dimensions	2.345hx1.115w

Specifications for VGR(F)CB-4C Contact Pairs

Voltage Rating (dielectric breakdown)	.335 VDC
Contact Resistance	4.0 mΩ
Insulation Resistance (MΩ Min)	5000
RF Leakage (dB Min)	-(90-F(Ghz))
Corona 70,000 ft (VRMS Min)	250
Impedance	50Ω
Frequency Range	DC to 18 Ghz
VSWR	1.05 + .005 F(Ghz)
Insertion Loss	0.06√(f(Ghz))
Durability	5,000 cycles

Coax Receiver / ITA Interconnect Information

Receiver / ITA Coax Cable Assemblies (36 inches):

Terminated with SMA plug on each end

50Ω UFF 092A	CR-CA50UFF092A-36
50Ω UFF 311A	CR-CA50UFB311A-36

Unterminated at Opposite End:

50Ω RG-142B/U	CR-CA50URG142B/U-36
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Contacts Only:

50Ω Blind Mate Adapter (Jack/Plug)	A32433
50Ω Blind Mate Adapter (Jack/Jack)	A32434
SMA connector (Plug)	A31889

RG-142B/U	50	10	70.00
UFF 092A	50	18	92.00
UFB 311A	50	18	2.00

Accessories

Installation Tool for ITA Contact A32434	A31888
SMA Connector Torque Wrench	A31877

UTIFLEX

UFF092A

UFB311A

Mechanical Characteristics

Outer diameter (in)	0.092	0.311
Center Conductor Type	Solid	Solid
Weight (grams/ft)	6	37
Static Bend Radius (in)	0.25	3.25
Dynamic Bend Radius (in)	0.50	4.75
Flexures	>10,000	>5,000

Electrical Characteristics

Impedance (W)	50	50
Frequency Range (Ghz)	DC – 18	DC – 18
Velocity of Propagation	77%	83%
Capacitance (pf/ft)	26.2	24.5
Shielding effect (dB@1Ghz)	>-90	>-100
Max. Insertion Loss (dB/ft)	1Ghz/0.05 10 Ghz/0.15 18 Ghz/0.20	1Ghz/0.05 10 Ghz/0.15 18 Ghz/0.20

Power	See chart 1	See chart 1
Attenuation	See chart 2	See chart 2

Environmental Characteristics

Temperature Range (°C)	-65 to + 165	-65 to + 165
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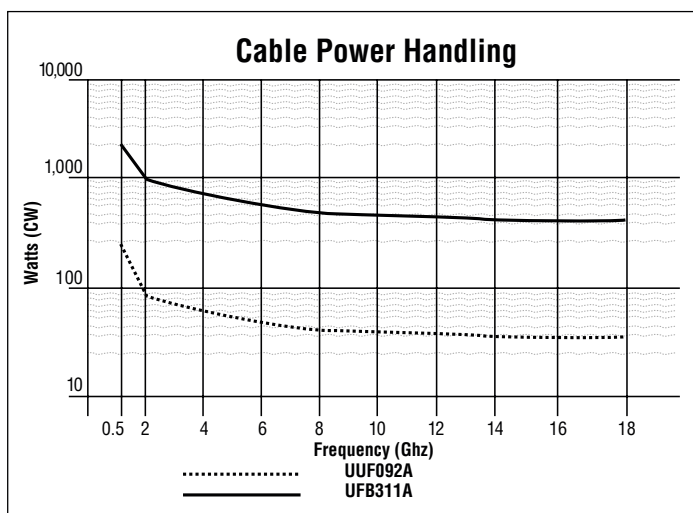


Chart 1

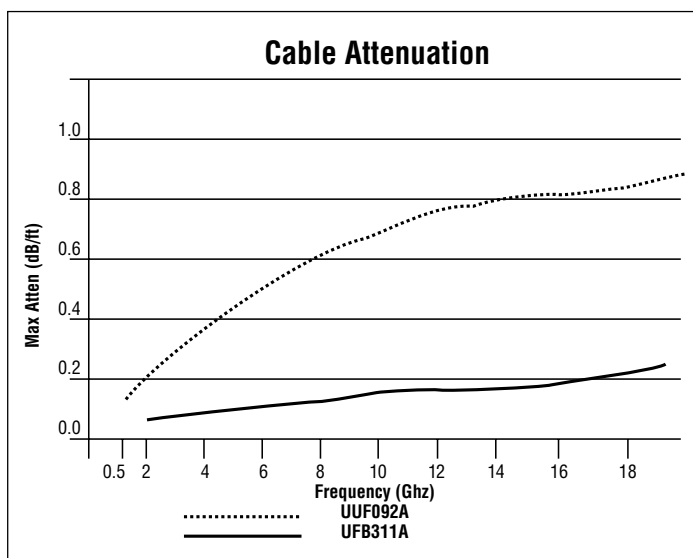
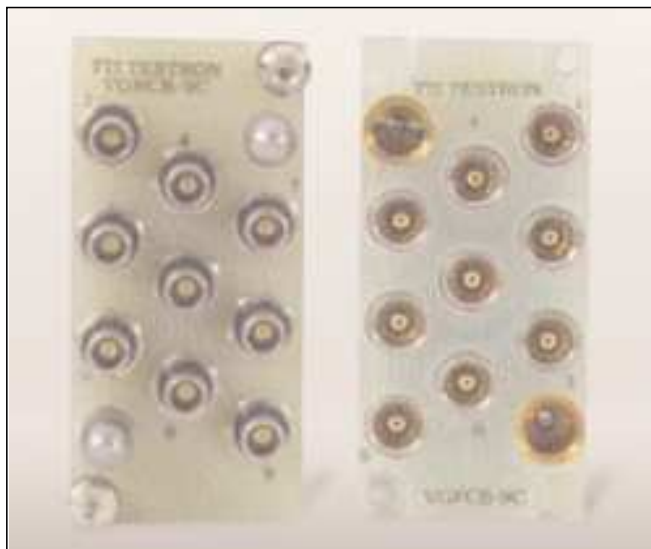


Chart 2



Interface Receiver/Fixture Specifications

Block Specifications

Receiver Side Part Number	VGRCB-9C
Fixture Side Part Number	VGFCB-9C
Number of Alignment Pins	2
Number of Contacts	9
Dimensions	2.345hx1.115w

Specifications for VGR(F)CB-9C Contact Pairs

Voltage Rating (dielectric breakdown)	335 VDC
Contact Resistance	2.0 mΩ
Insulation Resistance (MΩ Min)	5000
RF Leakage (dB Min)	-(60-F(GHz))
Corona 70,000 ft (VRMS Min)	190
Impedance	50Ω
Frequency Range	DC to 18 GHz
VSWR	1.15 + .01F(GHz)
Insertion Loss	0.03√(f(GHz))
Durability	.5,000 cycle

Coax Receiver / ITR Interconnect Information

10 GHz Cable Receiver Assembly	
Receiver coax contacts with 36" cable assembly (unterminated opposite end).	
50Ω RG-142/U	CR-CA50RG142-36
18 GHz Cable Receiver Assembly	
Receiver coax contacts with 36" cable assembly (OSP bulkhead plug at one end, SMA plug at opposite end).	
50Ω UFF 092A	A32495
Contacts Only:	
50Ω Blind Mate Adapter (Plug)	A31897

VGRCB-9C VGFCB-9C

The VGR(F)CB-9C provides 9 coaxial contacts for signals up to 18 GHz. All cable connections to the VGR(F)CB-9C blocks are made through SMA cable contacts providing for a variety of available coaxial cables. Two precision alignment pins per block ensure proper alignment. Two shoulder mounting screws per VGRCB-9C block allow the block to 'float' in the receiver. Blocks and contacts are sold separately.

Fixture / ITA Interconnect Information

10 GHz Cable ITA Assembly	
ITA coax contacts with 36" cable assembly (unterminated opposite end).	
50Ω RG-142/U	CF-CA50RG142-36

18 GHz Cable ITA Assembly	
ITA coax contacts with 36" cable assembly (OSP bulkhead plug at one end, SMA plug at opposite end).	
50Ω UFF 092A	A32494

Contacts Only:

50Ω Blind Mate Adapter	A32434
(Blind Mate one end, SMA other end)	
50Ω Blind Mate Contact (Jack)	A31898

Application Notes:

Both the receiver and ITA blind mate contacts accept RG-142/U, 50Ω coax cable (cable maximum frequency is 10GHz, attenuation 0.7dB/ft.) or miniature coax (0.092 inch diameter) UFF 092A, 50Ω coax cable (cable maximum frequency is 18GHz, attenuation 0.92 dB/ft.). When designing solutions using the VGR(F)CB-9C blocks, keep in mind the "system" losses of the solution you are attempting to achieve. The insertion loss of the contacts without cabling of the VGR(F)CB-9C is approximately $0.03\sqrt{f(\text{GHz})}$. The blind mate contacts without cabling have a frequency range from DC to 18 GHz.

Cable Type	Impedance (Ω)	Max Freq. (Ghz)	Atten @ Max Freq. -dB/100 ft
RG-142B/U	50	10	70.00
UFF 092A	50	18	92.00

Accessories

Installation Tool for ITA Contact	A32492
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UTIFLEX

UFF092A

Mechanical Characteristics

Outer diameter (in)	0.092
Center Conductor Type	Solid
Weight (grams/ft)	6
Static Bend Radius (in)	0.25
Dynamic Bend Radius (in)	0.50
Flexures	>10,000

Electrical Characteristics

Impedance (Ω)	50
Frequency Range (Ghz)	DC – 18
Velocity of Propagation	77%
Capacitance (pf/ft)	26.2
Shielding effect (dB@1Ghz)	>-90
Max. Insertion Loss (dB/ft)	1Ghz
	10 Ghz
	18 Ghz
Power	See chart 1
Attenuation	See chart 2

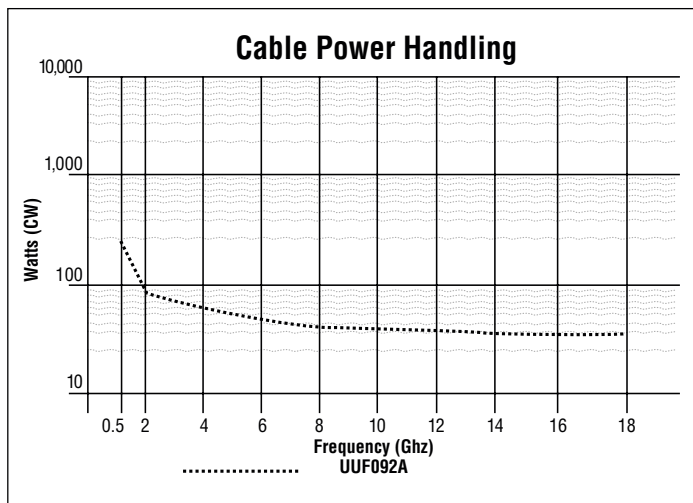


Chart 1

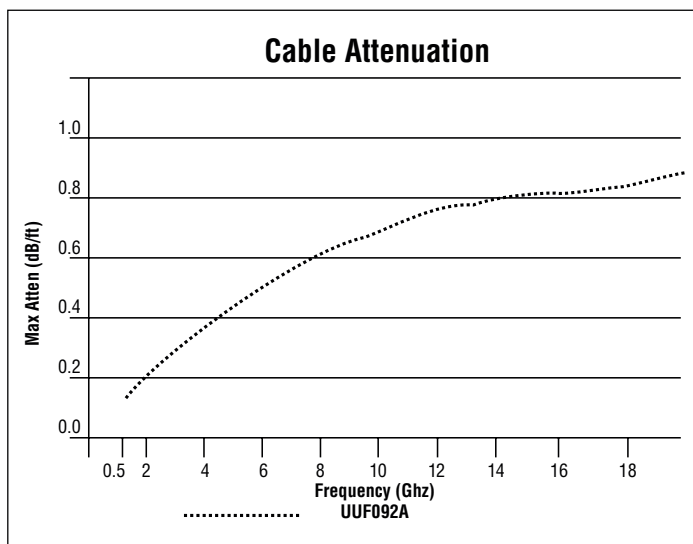
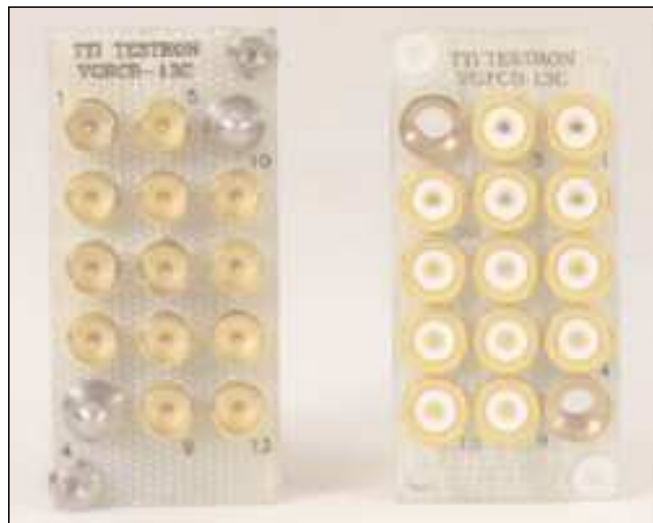


Chart 2



VGRCB-13C VGFCB-13C

The VGRCB-13C provides 13 coaxial contacts for signals up to 3.7 Ghz. The center conductor is a replaceable standard .035 probe. The outer contact shell on the VGRCB-13C is spring loaded. All cable connections to the VGR/VGFCB-13C blocks are snap-on SMB. Proper alignment is ensured by: two precision alignment pins per block; two shoulder mounting screws per VGRCB-13C block allow the block to 'float' in the receiver.

Interface Receiver/Fixture Specifications

Coax Contacts

Receiver Side Part Number	VGRCB-13C
Fixture Side Part Number	VGFCB-13C

Specifications for VGRCB-13C & VGFCB-13C Contact Pairs

Number of Alignment Pins	2
Number of Contacts	13
Dimensions	2.345h x 1.115w
Voltage Rating	250 VAC
Current Rating	5 Amps Continuous
Contact Resistance	39 mΩ
Impedance	50Ω
Capacitance	.88 pF
Inductance	.42 mH
Bandwidth (-3 dB Roll Off)	3.7 Ghz (-1dB)
	7.6 Ghz (-3dB)

Maximum recommended usage is limited to 4 Ghz

Durability	25,000 cycles
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Coax Receiver Interconnection Information

Receiver Coax Contacts w/36" Cable Assembly	
50Ω RG174 w/SMB Connector	CRF-CA50RG174/SMB-36

ITA Interconnection Information

ITA Coax Contacts w/36" Cable Assembly	
50Ω RG174 w/SMB Connector	CRF-CA50RG174/SMB-36

Center Conductor Extraction/Insertion Tool

Center Conductor Extraction Tool	VGR13XT
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SMB Disconnect / Extraction Tool

Coaxial Extraction Tool	VGXCT
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Replacement Center Conductor Kit

(6 probes)	VGR-CC50-13C
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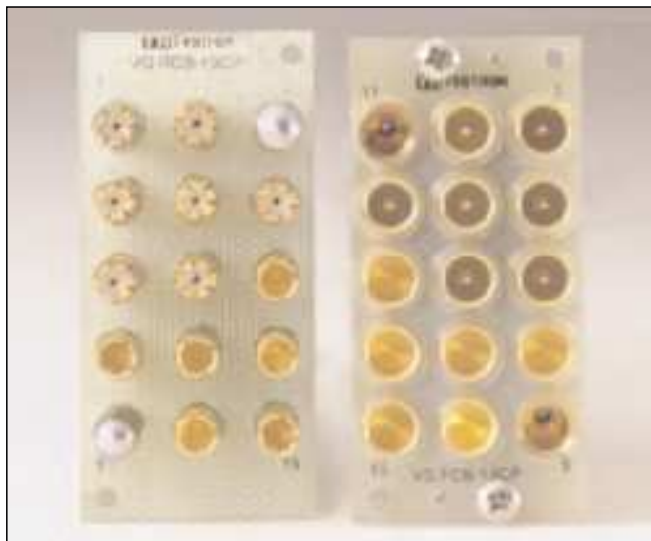
Application Notes:

When designing solutions using the VGR/VGFCB-13C blocks, keep in mind the "system" losses of the solution you are attempting to achieve. The RF "receiver to fixture" interface is a contact set designed by TTI Testron. The bandpass of the contacts less cabling of the VGR/VGFCB-13C solution is approximately 3.5Ghz (-1db roll off) and 7.6 Ghz (-3db roll off).

The "cable to VGF" contacts and "cable to VGR" contacts are 50Ω SMB contacts which are typically rated for a 4 Ghz bandwidth. The standard cable used with the SMB contact above is RG-174, which has a high loss rate at frequencies above 1 Ghz. Typical loss at 1Ghz is approximately 0.45db per foot. Hence, the conservative specifications of 2.5 and 3.5 Ghz bandpass apply with the standard cable solution. For improved performance at frequencies above 1 Ghz, alternate cabling such as semi-rigid should be sought (RG/405 below).

Using semi rigid coax for the VGR/VGRCB-13C requires the use of a SMB plug to OSM(SMA) jack adapter. Manufactured by M/A-COM, Inc., Part Number 5182-2240-00, available through CompuCon Distributors at (516) 981-8810.

RG Cable	M17 Cable	Impedance (Ohms)	Max Freq (Ghz)	Atten @ Max Freq-db/100ft
174	119, 173	50	1	45
316	113, 172	50	3	58
405 semi-rigid	130	50	10	45



VGRCB-13CP VGFCB-13CP

The VGRCB-13CP provides 13 contacts for coax, power or a combination of both. Coax contacts are provided for signals up to 500 Mhz and power signals up to 50Amps/250VAC. Proper alignment is ensured by: two precision alignment pins per block; two shoulder mounting screws per VGR block allow the block to float in the receiver.

Interface Receiver Assembly Connector Blocks Specifications

Coax Contacts

Receiver Side Part Number	VGRCB-13CP
Number of Contacts	13
Dimensions	2.345h x 1.115w
Voltage Rating	250 VAC
Current Rating	1.5 Amp
Contact Resistance	6 mΩ
Capacitance	5 pF
Inductance	3 nH
Bandwidth (-3 dB Roll Off)	500 Mhz
Durability	25,000 cycles

Power & Coax Receiver Interconnection Information

Power Contacts	
50 Amp	CR610116102

Receiver Coax Contacts w/36" Cable Assembly

50Ω RG174	CR-CA50RG174-36
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ITA Interconnection Information

Fixture Mating Connector	VGFCB-13CP
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ITA Coax Contacts w/36" Cable Assembly

50Ω RG174	CF-CA50RG174-36
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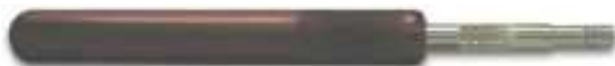
Power Contacts

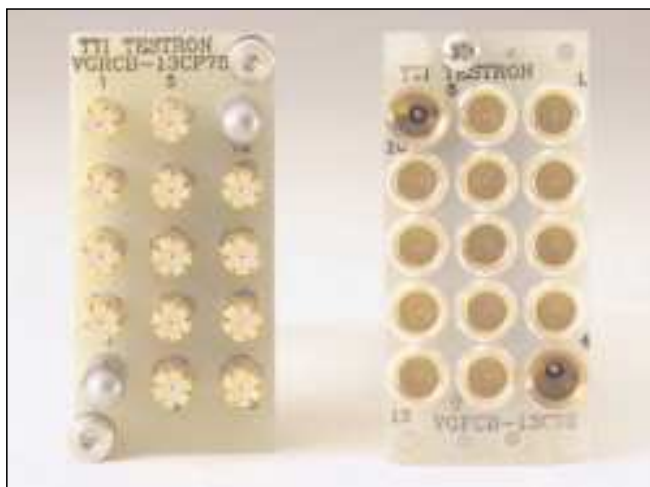
Receiver Side Part Number	VGRCB-13CP
Number of Contacts	13

Dimensions	2.345h x 1.115w
Voltage Rating	250 VAC
Current Rating *	.50 Amp
Contact Resistance	6 mΩ
Capacitance	50 pF
Inductance	3 nH
Bandwidth (-3 dB Roll Off)	1 KHz
Durability	25,000 cycles

*50 Amp – various solder cup options are available for the ITA power configuration.

14 awg	610115102 (std)
18 awg	610115103
22 awg	610115118





Interface Receiver Assembly Connector Blocks Specifications

Coax Contacts

Receiver Side Part Number	VGRCB-13C75
Fixture Side Part Number	VGFCB-13C75

VGRCB-13C75 & VGFCB-13C75 Contact Pairs

Number of Alignment Pins	2
Number of Contacts	3
Dimensions	2.345h x 1.115w
Voltage Rating (dielectric breakdown)	500 VDC
Current Rating	0.5 Amps Continuous
Contact Resistance	6 mW
Impedance	75W
VSWR	1.10:1 @ 1 GHz
Crosstalk	Down 70 dB @ 1 GHz
Insertion Loss	0.038 @ 1 GHz
Durability	20,000 cycles

Coax Receiver Interconnection Information

Unterminated on opposite end

Receiver Coax Contacts w/36" Cable Assembly

75W RG179	CR-CA75RG179-36
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ITA Interconnection Information

Unterminated on Opposite End

ITA Coax Contact w/36" Cable Assembly

75W RG179	CF-CA75RG179-36
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VGRCB-13C75 VGFCB-13C75

The VGRCB-13C75 provides 13 coaxial contacts for signals up to 1GHz. All cable connections to the VGR/VGFCB-13C75 blocks are RG-179. Proper alignment is ensure by: two precision alignment pins per block; two shoulder mounting screws per VGRCB-13C75 block allow the block to 'float' in the receiver. Blocks and contacts are sold separately.

Contact Only

ITA Coax Contacts w/o Cable Assembly (Assembly Required)

75W VGR Contact Kits Only	CR-610104150
75W VGF Contact Kits Only	CF-610103155

Note: When designing solutions using the VGR/VGFCB-13C75 blocks, keep in mind the system losses of the solution you are attempting to achieve. The bandpass of the contacts less cabling of the VGR/VGFCB-13C75 solution is approximately 1GHz for a 0.38dB insertion loss.

The cable used with the VGR/FCB-13C75 contact above is RG-179 which has a moderate loss rate at frequencies above 1 GHz. Typical loss @ 1GHz is approximately 0.43dB per foot.

RG Cable	M17 Cable	Impedance (Ohms)	Max Freq (Ghz)	Atten @ Max Freq-db/100ft
59**	29	75	1	16
179	94	75	3	43

** RG59 can be used but is not available from TTI Testron.

Insertion Loss

Frequency	Insertion Loss	VSWR Insertion Loss
100 MHz	0.016	1.008
500 MHz	0.03	1.01
1 GHz	0.038	1.07
2 GHz	0.0289	1.31





VGRCB-13PNEU VGFCB-13PNEU

The VGR and VGFCB-13PNEU provide up to 13 pneumatic lines to provide individual air sources for test interconnects utilizing pneumatic cylinders. Control of the air flow is designed to be on the test system side in this application as these contacts do not start/stop the air flow through the contacts. Proper alignment is ensured by: two precision alignment pins per block; two shoulder mounting screws per VGRCB-13PNEU block allowing the block to 'float' in the receiver. The fixture and receiver blocks are sold unconfigured, allowing the user to configure the interconnect for the desired quantity of pneumatic contacts.

Preliminary Information For Reference Only

Interface Receiver Specifications

Connector Blocks

Individual Pneumatic Contacts

Receiver Side Part Number VGRCB-13PNEU

Fixture Side Part Number VGFCB-13PNEU

Specifications for VGRCB-13PNEU

Number of Alignment Pins 2

Number of Contacts 13 Maximum

Dimensions 2.345h x 1.115w

Air Pressure Rating 150 PSI

Durability 25,000 cycles

ITR Interconnection Information

Receiver Pneumatic Contact Part Number **A32431**

Contact Insertion Tool TBD

O-Ring Replacement Seal A34432

ITA Interconnect Information

Fixture Pneumatic Contact Part Number **A32432**

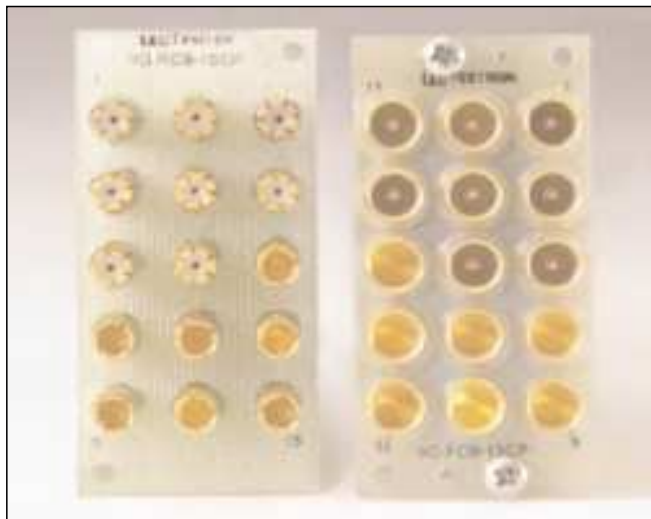
Contact Insertion Tool TBD

Pneumatic Tubing Specifications

.170" ID Pneumatic Polyethylene Tubing

.250" O.D. .040 wall

Working PSI - 120 PSI @ 75 o F



VGRCB-15CP VGFCB-15CP

The VGRCB-15CP provides 15 contacts for coax, power or a combination of both. Coax contacts are provided for signals up to 500 Mhz and power signals up to 50Amps/250VAC.

Interface Receiver Assembly Connector Blocks Specifications

Coax Contacts

Receiver Side Part Number	VGRCB-15CP
Number of Contacts	15
Dimensions	.2.345h x 1.115w
Voltage Rating	250 VAC
Current Rating	1.5 Amp
Contact Resistance	6 mΩ
Capacitance	5 pF
Inductance	3 nH
Bandwidth (-3 dB Roll Off)	500 Mhz
Durability	25,000 cycles

Power & Coax Receiver Interconnection Information

Power Contacts	
50 Amp	CR610116102

Receiver Coax Contacts w/36" Cable Assembly

50Ω RG174	CR-CA50RG174-36
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ITA Interconnection Information

Fixture Mating Connector	VGFCB-15CP
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ITA Coax Contacts w/36" Cable Assembly

50Ω RG174	CF-CA50RG174-36
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Power Contacts

Receiver Side Part Number	VGRCB-15CP
Number of Contacts	15

Dimensions	.2.345h x 1.115w
Voltage Rating	250 VAC
Current Rating *	.50 Amp
Contact Resistance	6 mΩ
Capacitance	50 pF
Inductance	3 nH
Bandwidth (-3 dB Roll Off)	1 Khz
Durability	25,000 cycles

*50 Amp – various solder cup options are available for the ITA power configuration.

14 awg	610115102 (std)
18 awg	610115103
22 awg	610115118

Note: The VGR and VGFCB-15CP are obsolete parts and should only be used in applications requiring compatibility with older contact block designs.

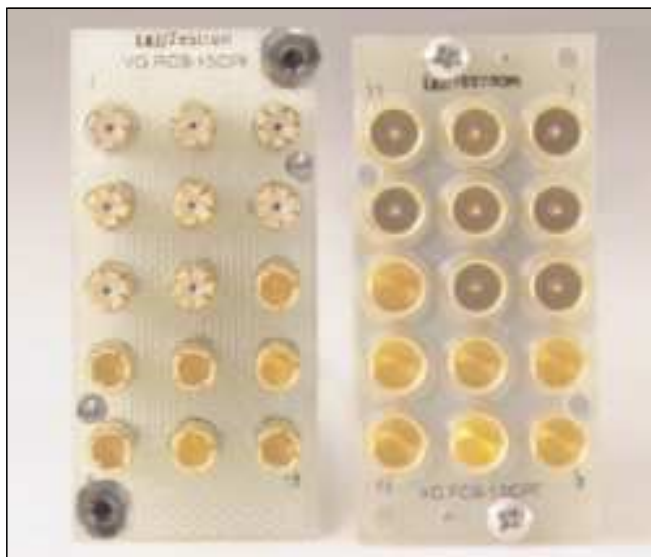
New systems should use either: VGR/VGFCB-13CP or VGR/VGFCB-15CPF



CR-50RG174-36 Receiver Cable
CF-CA50RG174-36 Fixture Cable



Coax/Power Contact Extraction Tool .VGRXT



Interface Receiver Assembly Connector Blocks Specifications

Coax Contacts

Receiver Side Part Number	VGRCB-15CPF
Number of Contacts	15
Dimensions	2.345h x 1.115w
Voltage Rating	250 VAC
Current Rating	1.5 Amp
Contact Resistance	6 mΩ
Capacitance	5 pF
Inductance	3 nH
Bandwidth (-3 dB Roll Off)	500 Mhz
Durability	25,000 cycles

Power & Coax Receiver Interconnection Information

Power Contacts

50 Amp	CR(880127)
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Receiver Coax Contacts w/36" Cable Assembly

50Ω RG174	CR-CA50RG174-36
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ITA Interconnection Information

Fixture Mating Connector	VGFCB-15CPF
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ITA Coax Contacts w/36" Cable Assembly

50Ω RG174	CF-CA50RG174-36
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Power Contacts

Receiver Side Part Number	VGRCB-15CPF
Number of Contacts	15
Dimensions	2.345h x 1.115w

VGRCB-15CPF VGFCB-15CPF

The VGRCB-15CPF provides 15 contacts for coax, power or a combination of both. Coax contacts are provided for signals up to 500 Mhz and power signals up to 50Amps/250VAC. Proper alignment is ensured by: two precision alignment pins per block; two shoulder mounting screws per VGR block allow the block to float in the receiver.

Voltage Rating	250 VAC
Current Rating *	.50 Amp
Contact Resistance	6 mΩ
Capacitance	50 pF
Inductance	3 nH
Bandwidth (-3 dB Roll Off)	1 KHz
Durability	25,000 cycles

*50 Amp – various solder cup options are available for the ITA power configuration.

14 awg	610115102 (std)
18 awg	.610115103
22 awg	.610115118



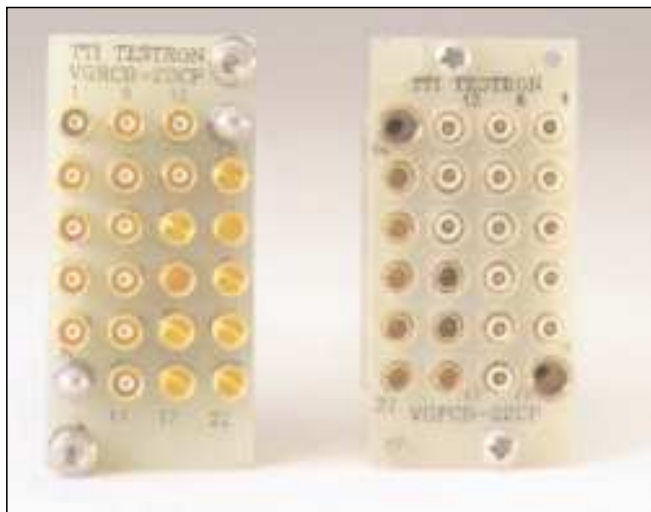
CR-50RG174-36 Receiver Cable
CF-CA50RG174-36 Fixture Cable



Alignment Pin Installation ToolA32503



Coax/Power Contact Extraction ToolVGRXT



VGRCB-22CP VGFCB-22CP

The VGRCB-22CP provides 22 contacts for mini-coax, power or a combination of both. Mini-coax contacts are provided for signals up to 1 Ghz and power signals up to 50Amps/250VAC. Proper alignment is ensured by: two precision alignment pins per block; two shoulder mounting screws per VGRCB-22CP block allow the block to 'float' in the receiver.

Interface Receiver/Fixture Specifications

Coax Contacts

Receiver Side Part Number	VGRCB-22CP
Fixture Mating Connector	VGFCB-22CP
Number of Contacts	22
Dimensions	2.345h x 1.115w
Voltage Rating	250 VAC
Current Rating	500 mAmp
Contact Resistance	.5 mΩ
Impedance	50 Ω
Capacitance	.21 pF
Inductance	3 nH
Bandwidth (-3 dB Roll Off)	1 Ghz
Durability	25,000 cycles

Coax - Receiver Interconnection Information

Receiver Coax Contacts w/36" Cable Assembly	
Mini Coax 50Ω RG174	CR-MCA50RG174-36
Mini Coax Contact Kit 50Ω	CR-610104114
Type of Connection	Crimp

Coax - ITA Interconnection Information

Mini Coax 50Ω RG174	CF-MCA50RG174-36
Mini Coax 50Ω (Contact Only)	CF-610103115
Type of Connection	Crimp

Power Contacts

Receiver Side Part Number	VGRCB-22CP
Fixture Side Part Number	VGFCB-22CP
Number of Contacts	22
Dimensions	2.345h x 1.115w
Voltage Rating	250 VAC
Current Rating	50 Amp
Contact Resistance	6 mΩ
Capacitance	21 pF
Inductance	3 nH
Bandwidth (-3 dB Roll Off)	1 Khz
Durability	25,000 cycles

Power - Receiver Interconnection Information

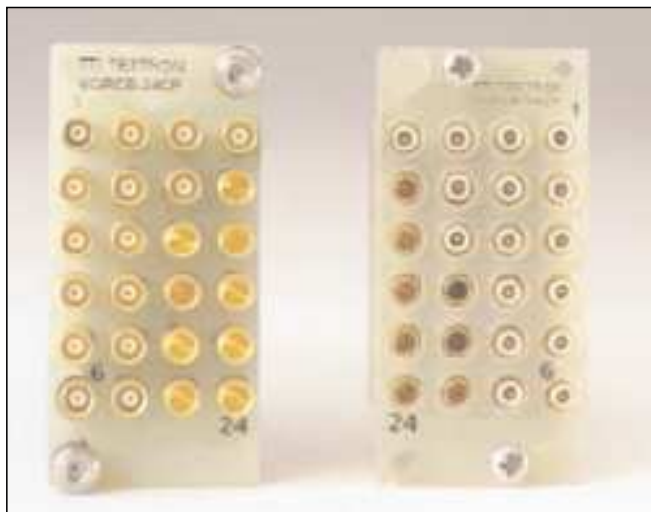
Power Contact	
Mini 50 Amp	CR-610116112
Type of Connection	Solder

Power - ITA Interconnection Information

Power Contact	
Mini 50 Amp	CF-0883011-02
Type of Connection	Solder



Mini Coax/Power Contact Extraction Tool .VGMXT



VGRCB-24CP VGFCB-24CP

The VGRCB-24CP provides 24 contacts for mini-coax, power or a combination of both. Mini-coax contacts are provided for signals up to 1 Ghz and power signals up to 50Amps/250VAC.

Interface Receiver/Fixture Specifications

Coax Contacts

Receiver Side Part Number	VGRCB-24CP
Fixture Mating Connector	VGFCB-24CP
Number of Contacts	24
Dimensions	2.345h x 1.115w
Voltage Rating	250 VAC
Current Rating	500 mAmp
Contact Resistance	5 mΩ
Impedance	50 Ω
Capacitance	21 pF
Inductance	3 nH
Bandwidth (-3 dB Roll Off)	1 Ghz
Durability	25,000 cycles

Coax - Receiver Interconnection Information

Receiver Coax Contacts w/36" Cable Assembly	
Mini Coax 50Ω RG174	CR-MCA50RG174-36
Mini Coax Contact Kit 50Ω	CR-610104114
Type of Connection	Crimp

Coax - ITA Interconnection Information

Mini Coax 50Ω RG174	CF-MCA50RG174-36
Mini Coax 50Ω (Contact Only)	CF-610103115
Type of Connection	Crimp

Power Contacts

Receiver Side Part Number	VGRCB-24CP
Fixture Side Part Number	VGFCB-24CP
Number of Contacts	24
Dimensions	2.345h x 1.115w
Voltage Rating	250 VAC
Current Rating	50 Amp
Contact Resistance	6 mΩ
Capacitance	21 pF
Inductance	3 nH
Bandwidth (-3 dB Roll Off)	1 Khz
Durability	25,000 cycles

Power - Receiver Interconnection Information

Power Contact	
Mini 50 Amp	CR-610116112
Type of Connection	Solder

Power - ITA Interconnection Information

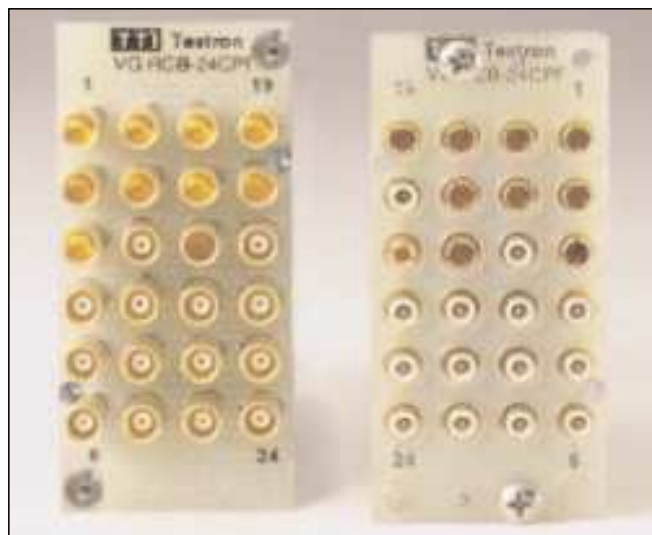
Power Contact	
Mini 50 Amp	CF-0883011-02
Type of Connection	Solder

Note: The VGR and VGFCB-24CP are obsolete parts and should only be used in applications requiring compatibility with older contact block designs.

New systems should use either: VGR/VGFCB-22CP or VGR/VGFCB-24CPF



Mini Coax/Power Contact Extraction ToolVGMXT



VGRCB-24CPF VGFCB-24CPF

The VGRCB-24CPF provides 24 contacts for Mini-coax, power or a combination of both. Mini-coax contacts are provided for signals up to 1 Ghz and power signals up to 50Amps/250VAC. Proper alignment is ensured by two precision alignment pins per block; two shoulder mounting screws per VGR block allow the block to float in the receiver.

Interface Receiver/Fixture Specifications

Coax Contacts

Receiver Side Part Number	VGRCB-24CPF
Fixture Mating Connector	VGFCB-24CPF
Number of Contacts	24
Dimensions	2.345h x 1.115w
Voltage Rating	250 VAC
Current Rating	500 mAmp
Contact Resistance	5 mΩ
Impedance	50 Ω
Capacitance	21 pF
Inductance	3 nH
Bandwidth (-3 dB Roll Off)	1 Ghz
Durability	25,000 cycles

Coax - Receiver Interconnection Information

Receiver Coax Contacts w/36" Cable Assembly	
Mini Coax 50Ω RG174	CR-MCA50RG174-36
Mini Coax Contact Kit 50Ω	CR-610104114
Type of Connection	Crimp

Coax - ITA Interconnection Information

Mini Coax 50Ω RG174	CF-MCA50RG174-36
Mini Coax 50Ω (Contact Only)	CF-610103115
Type of Connection	Crimp

Power Contacts

Receiver Side Part Number	VGRCB-24CPF
Fixture Side Part Number	VGFCB-24CPF
Number of Contacts	24
Dimensions	2.345h x 1.115w
Voltage Rating	250 VAC
Current Rating	20 Amp
Contact Resistance	6 mΩ
Capacitance	21 pF
Inductance	3 nH
Bandwidth (-3 dB Roll Off)	1 KHz
Durability	25,000 cycles

Power - Receiver Interconnection Information

Power Contact	
Mini 50 Amp	CR-610116112
Type of Connection	Solder

Power - ITA Interconnection Information

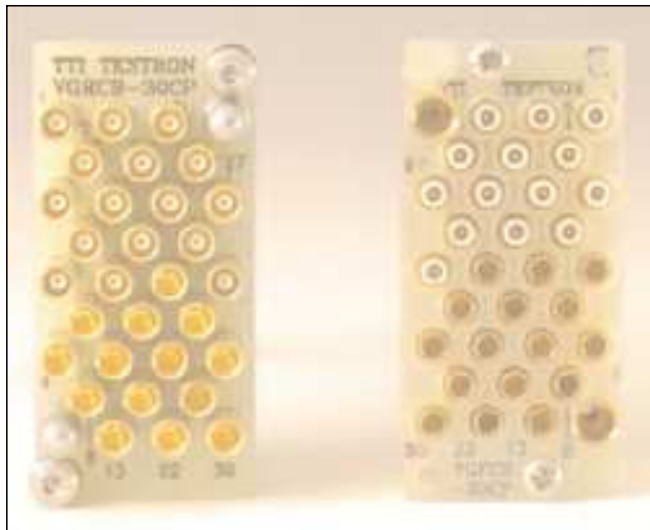
Power Contact	
Mini 50 Amp	CF-0883011-02
Type of Connection	Solder



Alignment Pin Installation ToolA32503



Mini Coax/Power Contact Extraction ToolVGMXT



VGRCB-30CP VGFCB-30CP

The VGRCB-30CP provides 30 contacts for mini-coax, power or a combination of both. Mini-coax contacts are provided for signals up to 1 Ghz and power signals up to 50Amps/250VAC. Proper alignment is ensured by: two precision alignment pins per block; two shoulder mounting screws per VGRCB-30CP block allow the block to 'float' in the receiver.

Interface Receiver/Fixture Specifications

Coax Contacts

Receiver Side Part Number	VGRCB-30CP
Fixture Mating Connector	VGFCB-30CP
Number of Contacts	30
Dimensions	2.345h x 1.115w
Voltage Rating	250 VAC
Current Rating	500 mAmp
Contact Resistance	5 mΩ
Impedance	50 Ω
Capacitance	21 pF
Inductance	3 nH
Bandwidth (-3 dB Roll Off)	1 Ghz
Durability	25,000 cycles

Coax - Receiver Interconnection Information

Receiver Coax Contacts w/36" Cable Assembly	
Mini Coax 50Ω RG174	CR-MCA50RG174-36
Mini Coax Contact Kit 50Ω	CR-610104114
Type of Connection	Crimp

Coax - ITA Interconnection Information

Mini Coax 50Ω RG174	CF-MCA50RG174-36
Mini Coax 50Ω (Contact Only)	CF-610103115
Type of Connection	Crimp

Power Contacts

Receiver Side Part Number	VGRCB-30CP
Fixture Side Part Number	VGFCB-30CP
Number of Contacts	30
Dimensions	2.345h x 1.115w
Voltage Rating	250 VAC
Current Rating	50 Amp
Contact Resistance	6 mΩ
Capacitance	21 pF
Inductance	3 nH
Bandwidth (-3 dB Roll Off)	1 Khz
Durability	25,000 cycles

Power - Receiver Interconnection Information

Power Contact	
Mini 50 Amp	CR-610116112
Type of Connection	Solder

Power - ITA Interconnection Information

Power Contact	
Mini 50 Amp	CF-0883011-02
Type of Connection	Solder



Mini Coax/Power Contact Extraction ToolVGMXT



VGRCB-32CP VGFCB-32CP

The VGRCB-32CP provides 32 contacts for mini-coax, power or a combination of both. Mini-coax contacts are provided for signals up to 1 Ghz and power signals up to 50Amps/250VAC.

Interface Receiver/Fixture Specifications

Coax Contacts

Receiver Side Part Number	VGRCB-32CP
Number of Contacts	32
Dimensions	2.345h x 1.115w
Voltage Rating	250 VAC
Current Rating	500 mAmp
Contact Resistance	.5 mΩ
Impedance	50 Ω
Capacitance	.21 pF
Inductance	.3 nH
Bandwidth (-3 dB Roll Off)	1 Ghz
Durability	25,000 cycles

Coax - Receiver Interconnection Information

Receiver Coax Contacts w/36" Cable Assembly	
Mini Coax 50Ω RG174	CR-MCA50RG174-36
Mini Coax Contact Kit 50Ω	CR-610104114
Type of Connection	Crimp

Coax - ITA Interconnection Information

Mini Coax 50Ω RG174	CF-MCA50RG174-36
Mini Coax 50Ω (Contact Only)	CF-610103115
Type of Connection	Crimp

ITA Interconnection Information

Fixture Mating Connector	VGFCB-32CP
(Includes Alignment Plate - B20627)	

Power Contacts

Receiver Side Part Number	VGRCB-32CP
Fixture Side Part Number	VGFCB-32CP
Number of Contacts	32
Dimensions	2.345h x 1.115w
Voltage Rating	250 VAC
Current Rating	50 Amp
Contact Resistance	.6 mΩ
Capacitance	.21 pF
Inductance	.3 nH
Bandwidth (-3 dB Roll Off)	1 Khz
Durability	25,000 cycles

Power - Receiver Interconnection Information

Power Contact	
Mini 50 Amp	CR-610116112
Type of Connection	Solder

Power - ITA Interconnection Information

Power Contact	
Mini 50 Amp	CF-0883011-02
Type of Connection	Solder

Note: The VGR and VGFCB-32CP are obsolete parts and should only be used in applications requiring compatibility with older contact block designs.

New systems should use either: VGR/VGFCB-30CP or VGR/VGFCB-32CPF



Mini Coax/Power Contact Extraction ToolVGMXT



VGRCB-32P VGFCB-32P

The VGRCB-32P provides 32 power contacts with a replaceable spring loaded high-current center probe.

Interface Receiver/Fixture Specifications

Power Contacts

Receiver Side Part Number	VGRCB-32P
Fixture Mating Connector	VGFCB-32P
Number of Contacts	32
Dimensions	2.345h x 1.115w
Voltage Rating	250 VAC
Current Rating	20 Amp
Contact Resistance	5 mΩ
Capacitance	21 pF
Inductance	3 nH
Contact Probe Vendor	OB
Durability	25,000 cycles

Power Contact - Center Conductor

VGRCB-32P-HCP	
Type of Connection	Replaceable Center Conductor

Power - Receiver Interconnection Information

VGRCB-32P	
Type of Connection	Solder

Power - ITA Interconnection Information

VGFCB-32P	
Type of Connection	Solder



VGRCB-32CPF Interface Test Receiver

Connector Blocks

Number of Contacts	32
Dimensions	2.345h x 1.115w
Voltage Rating	250 VAC
Current Rating	500 mAmp
Contact Resistance	.5 mΩ
Impedance	50 Ω
Capacitance	.21 pF
Inductance	.3 nH
Bandwidth (-3 dB Roll Off)	1 Ghz
Durability	25,000 cycles

Part Numbers

Coax Contact Blocks

Receiver Side Part Number	VGRCB-32CPF
Fixture Mating Connector	VGFCB-32CPF

Coax Interconnection – 36" Cable Assembly

Mini Coax 50Ω RG174	CR-MCA50RG174-36
Mini Coax Contact Kit 50Ω	CR-610104114
Type of Connection	Crimp

Power Contact

Mini 50 Amp	CR-610116112
Type of Connection	Solder

VGRCB-32CPF VGFCB-32CPF

The VGRCB-32CPF provides 32 contacts for mini-coax, power or a combination of both. Mini-coax contacts are provided for signals up to 1 Ghz and power signals up to 50Amps/250VAC. Proper alignment is ensured by: two precision alignment pins per block; two shoulder mounting screws per VGRCB-32CPF block allow the block to 'float' in the receiver.

VGFCB-32CPF Interface Test Adapter

Connector Blocks

Number of Contacts	32
Dimensions	2.345h x 1.115w
Voltage Rating	250 VAC
Current Rating	50 Amp
Contact Resistance	.6 m
Capacitance	.21 pF
Inductance	.3 nH
Bandwidth (-3 dB Roll Off)	.1 Khz
Durability	25,000 cycles

Part Numbers

Power Contact Blocks

Receiver Side Part Number	VGRCB-32CPF
Fixture Side Part Number	VGFCB-32CPF

ITA Interconnection Coax

Mini Coax 50Ω RG174	CF-MCA50RG174-36
Mini Coax 50Ω (Contact Only)	CF-610103115
Type of Connection	Crimp

Power Contact

Mini 50 Amp	CF-0883011-02
Type of Connection	Solder





Interface Receiver/Fixture Specifications

Receiver Side Part NumberVGRCB-39CPS
Fixture Mating ConnectorVGFCB-39CPS

Coax Contacts

Number of Coax Contactsup to 19*
Dimensions2.345h x 1.115w
Voltage Rating250 VAC
Current Rating500 mAmp
Contact Resistance5 mΩ
Impedance50 Ω
Capacitance21 pF
Inductance3 nH
Bandwidth (-3 dB Roll Off)1 Ghz
Durability25,000 cycles

Coax - Receiver Interconnection Information

Receiver Coax Contacts w/36" Cable Assembly
Mini Coax 50Ω RG174CR-MCA50RG174-36
Mini Coax Contact Kit 50ΩCR-610104114
Type of ConnectionCrimp

Coax - ITA Interconnection Information

Mini Coax 50Ω RG174CF-MCA50RG174-36
Mini Coax 50Ω (Contact Only)CF-610103115
Type of ConnectionCrimp

Power Contacts

Number of Power Contactsup to 19*
Dimensions2.345h x 1.115w
Voltage Rating250 VAC
Current Rating50 Amp
Contact Resistance6 mΩ

VGRCB-39CPS VGFCB-39CPS

The VGRCB-39CPS provides 19 contacts for mini-coax, power or a combination of both. Mini-coax contacts are provided for signals up to 1 Ghz and power signals up to 50Amps/250VAC. An additional 20 contacts are provided for signal lines. Proper alignment is ensured by: two precision alignment pins per block; two shoulder mounting screws per VGR block allow the block to float in the receiver.

Capacitance21 pF
Inductance3 nH
Bandwidth (-3 dB Roll Off)1 KHz
Durability25,000 cycles

Power - Receiver Interconnection Information

Power Contact
Mini 50 AmpCR-610116112
Type of ConnectionSolder

Power - ITA Interconnection Information

Power Contact
Mini 50 AmpCF-0883011-02
Type of ConnectionSolder

Signal Contacts

Number of Signal Contacts20
Dimensions2.345h x 1.115w
Voltage Rating250 VAC
Current Rating5 Amp – 22 AWG
Current Rating10 Amp – 14 AWG
Contact Resistance5 mΩ
Capacitance21 pF
Inductance3 nH
Bandwidth (-3 dB Roll Off)100 Mhz typical
Durability25,000 cycles
VG Mini Power/Coax Extraction ToolVGMXT

* The block can be configured with the user defined numbers of coax and power contacts. Total of power and coax contacts can not exceed 19.

The VGR and VGFCB-39CPS contact blocks are Teradyne compliant and are available on their Spectrum 9000 Series of functional test platforms.



Mini Coax/Power Contact Extraction ToolVGMXT



VGRCB-136H VGFCB-136

The VGRCB-136 is a medium density contact block designed to use with ribbon cables plugging directly onto the back of the interconnect blocks.

VGRCB-136 Interface Receiver Assembly

Connector Blocks

Receiver Side Part Number	VGRCB-[xxx]
Number of Signal Contacts – [136]	136
Dimensions	2.345h x 1.115w
Voltage Rating	250 VAC
Current Rating	.5 Amps Continuous
Duty Cycle	> 100,000 cycles
Contact Resistance	10 mΩ
Bandwidth (-3 dB Roll Off)	1x10 ⁸ Hz
Probe Part Number	EPA-2B40
Probe Tail Type	Square - Wire Wrap; Round for Berg contacts
Pin Spacing	100 mil grid spacing
Pins Per Column	17
Columns Per Block	8

Receiver Interconnection Information

Square Tails for Wire Wrap	Order VGRCB-136H
Round Tails for Mating Connector	Order VGRCB-136H-R

VGFCB-136 Interface Test Adapter

Connector Blocks

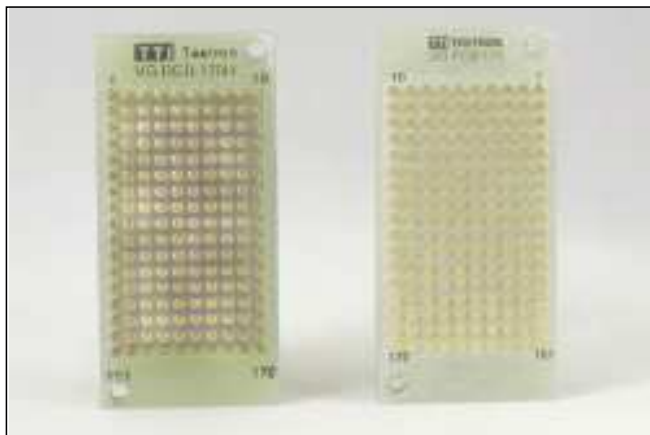
Fixture Side Part Number	VGFCB-136
Contact Part Number	A12476
Current Rating	.5 Amps continuous
Duty Cycle	> 100,000
Dimensions	2.345h x 1.115w

Fixture Interconnection Information

Fixture Mating Connector (Wire Wrap)	VGFCB-136
Fixture Mating Connector (Connector)	VGFCB-136

Mating Ribbon Cable Connector Information

2X17 Ribbon Cable Connector (34 Position)	
Amp-Latch™ Novo Receptacle	.746290-8
Amp Strain Relief	.499252-6
Newark Electronics Part Numbers for AMP Connector	
Amp-Latch™ Novo Receptacle	.90F5186
Amp Strain Relief	.90F4191



VGRCB-170H/VGRCB-110-IDC/ VGRCB-40A Interface Test Receiver

Connector Blocks

Dimensions	2.345h x 1.115w
Voltage Rating	250 VAC
Current Rating	.5 Amps Continuous*
Duty Cycle	> 100,000 cycles
Contact Resistance	10 mΩ
Bandwidth (-3 dB Roll Off)	1x10 ⁸ Hz
Probe Part Number	.054A-4C
Probe Tail Type	Square - Wire Wrap; Round for Berg contacts
Pin Spacing	100 mil grid spacing
Pins Per Row	10
Rows Per Block	17

Part Numbers

Connector Blocks

Receiver Side	VGRCB-[xxx]
Number of Signal Contacts	
170	-[170]
110	-[110]
40	-[40]

Receiver Interconnection

Square Tails for Wire Wrap	VGRCB-170H
Round Tails for Mating Connector	VGRCB-170H-R

Related Products

40 Contacts Analog Block	VGRCB-40A
110 Contacts Analog Block	VGRCB-110-IDC

VGRCB-170H VGFCB-170

The VGRCB-170 is a high density contact block suitable for analog and digital applications alike. For applications that require shielding or ground planes on the connector blocks, the VGRCB-40A and VGRCB-110-IDC use the VGRCB-170 as a foundation, adding ground planes to aid in suppressing high frequency noise and reduce crosstalk (receiver side only). The VGRCB-170H is manufactured for Wire Wrap connections. For connector applications, use the VGRCB-170H-R.

VGFCB-170 Interface Test Adapter

Connector Blocks

Dimensions	2.345h x 1.115w
Current Rating	.5 Amps continuous*
Duty Cycle	> 100,000

Part Numbers

Connector Blocks

Fixture Side	VGFCB-170**
Contact	A12476

Fixture Interconnection

Fixture Mating Connector (Wire Wrap)	VGFCB-170
Fixture Mating Connector (Connector)	VGFCB-170-R

Mating Cable Connector

17 Pin Crimp to Wire Housing	A32076
17 Pin Crimp to Wire Receptacles	A32075

*Wire Wrap current rating is 5 amps. The current limit through a Berg connection is 3 amps maximum.

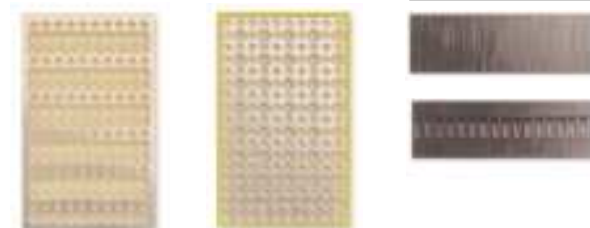
**Note: The termination to the ground plane is done on the receiver-side blocks. The fixture side contacts use a standard VGFCB-170 contact block.

Berg Clips



Ground Planes For Analog Blocks

Berg Headers



VGRCB-110-IDC

VGRCB-40-A

