

SV MICROWAVE®



Cable Assemblies

CABLE ASSEMBLY CAPABILITIES

Industry-Standard MIL-DTL-17 Flexible Cable Assemblies

SV Microwave supplies a full range of general-purpose cable assemblies using MIL-DTL-17 type cable. These cost-effective, high-quality assemblies are custom built using exacting manufacturing processes. Depending on the customer requirement, both standard and QPL connectors are available.



Extended Frequency Flexible Cable Assemblies

SV Microwave produces a series of high-frequency coaxial cable assemblies for general interconnect applications. These cable assemblies can feature either improved versions of MIL-DTL-17 cables or a variety of custom cables working at higher infrequency than can be achieved by standard MIL-DTL-17 cable. Many of the cables also offer improved performance for shielding and attenuation.



Formable Cable Assemblies

Serving as reliable replacements for semi-rigid assemblies, SV Microwave offers a series of formable coaxial cable assemblies. All formable cable assemblies use tin-filled braided cable and standard semi-rigid connectors for a cost-effective solution to custom-bent assemblies. Suitable for most interconnect applications, the cable can be easily formed without specialized tools or custom drawings.



Semi-Rigid Cable Assemblies

SV Microwave utilizes the highest quality MIL-standard and custom semi-rigid cables and connectors for their semi-rigid coaxial cable assemblies built to customer specifications. Cable is formed using specialized tooling or SV Microwave's CNC bending equipment. These high-precision cable assemblies are well suited where space is limited and tight bend radius is required.



SV MICROWAVE[®]

RF Connectors & Components
an Amphenol Company

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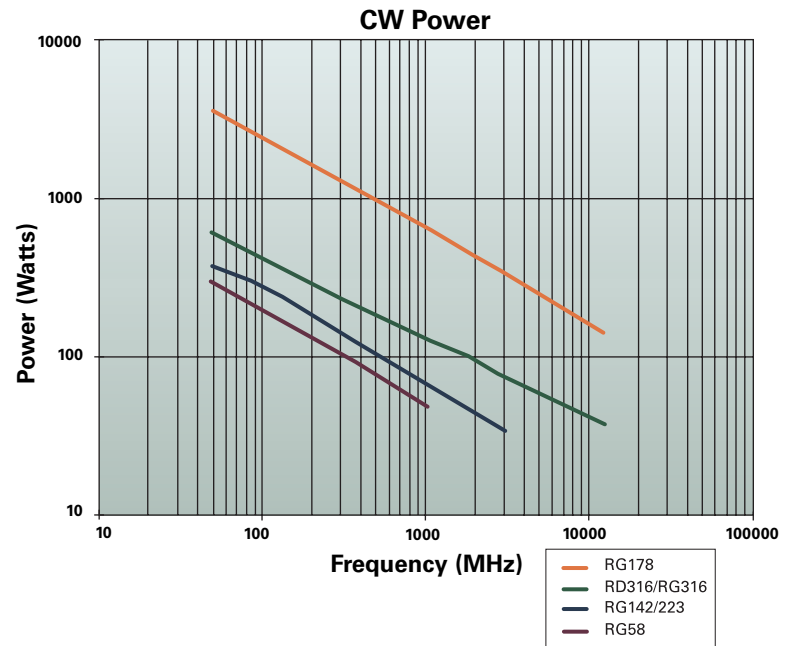
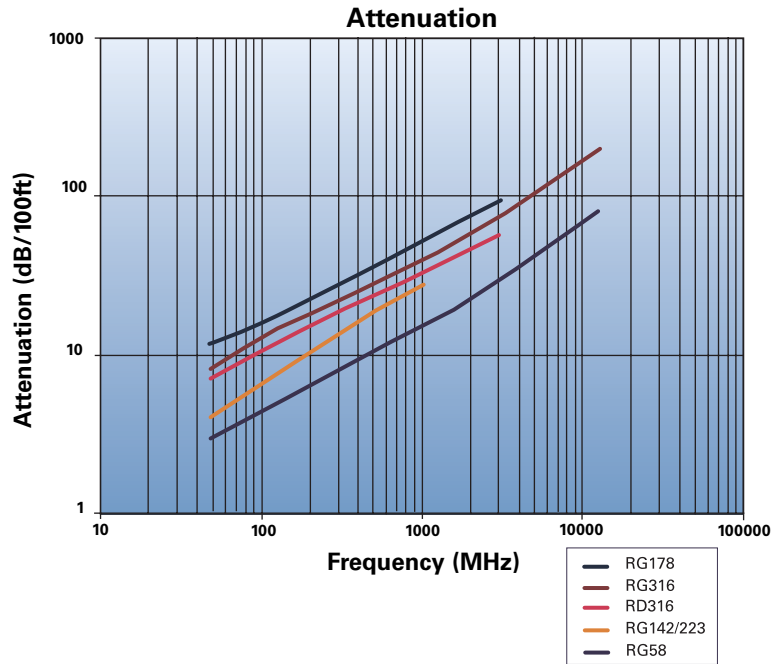
MIL-DTL-17 FLEXIBLE CABLE ASSEMBLIES

Features:

- Industry-standard cable types
- Various standard coaxial connectors
- Multiple connector attachment options
- RG cable sizes ranging from approx. .072 to .500 inch (1.8 to 12.7 mm) diameter
- Economical RF interconnect solutions

Applications:

- OEM market
- Between equipment interconnect
- Internal interconnect
- Wireless and GPS
- Control and command



Typical Cable Types

RG Number	MIL-DTL-17 Number	O.D. Diameter Inches (mm)	Shields	Frequency GHz (Max.)	Jacket Type
RG178	M17/93-RG178	0.072 (1.8)	1	3	FEP
RG316	M17/113-RG316	0.102 (2.6)	1	3	FEP
RD316	M17/152-00001	0.114 (2.9)	2	12.4	FEP
RG142B	M17/60-RG142	0.195 (5.0)	2	12.4	FEP
RG223	M17-84-RG223	0.211 (5.4)	2	12.4	PVC
RG58	M17/28-RG58	0.195 (5.0)	1	1	PVC

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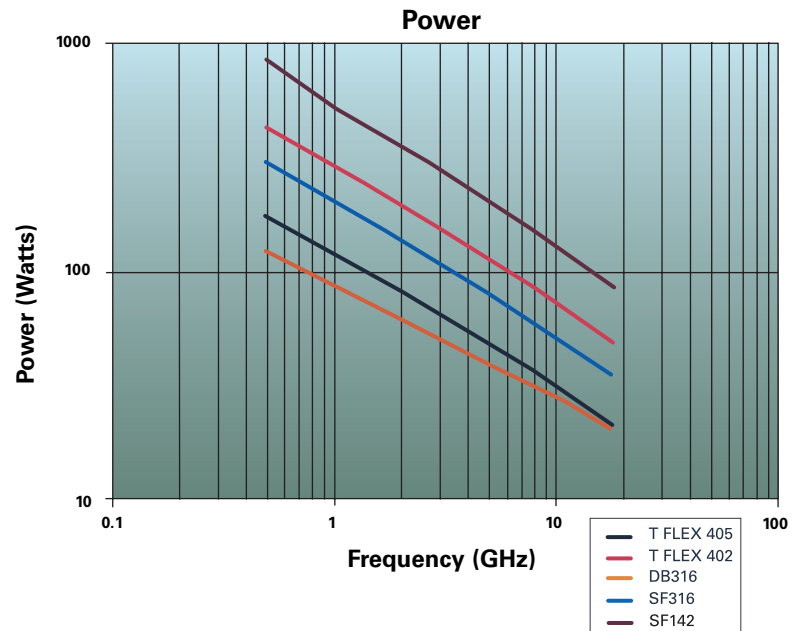
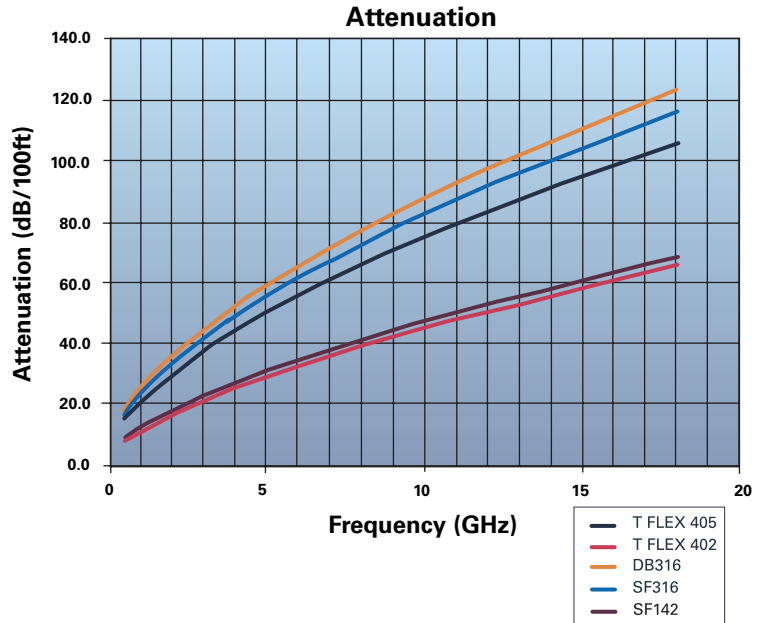
EXTENDED FREQUENCY, FLEXIBLE CABLE ASSEMBLIES

Features:

- Extended frequency flexible cable
- Various standard coaxial connectors
- High shielding
- Low attenuation
- RG cable sizes ranging from approx. .072 to .500 inch (1.8 to 12.7 mm) diameter
- Economical microwave interconnect solutions

Applications:

- OEM market
- Between equipment interconnect
- Internal interconnect
- Wireless and GPS
- Control and command
- Radar and EW systems
- General test cables



Typical Cable Types

Cable Type	Diameter (Inches)	Number of Shields	Shield Types	Maximum Frequency
SVSW405	0.105 (2.6)	2		20
SVDS316	0.098 (2.5)	2		18
SVTS316	0.115 (2.9)	3		18
SVSW402	0.150 (3.8)	2		20
SVTS142	0.190 (4.8)	3		18

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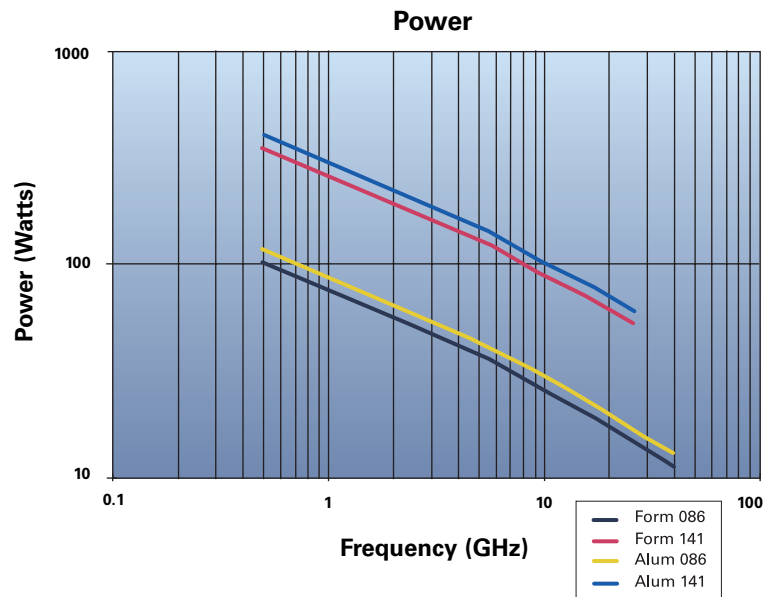
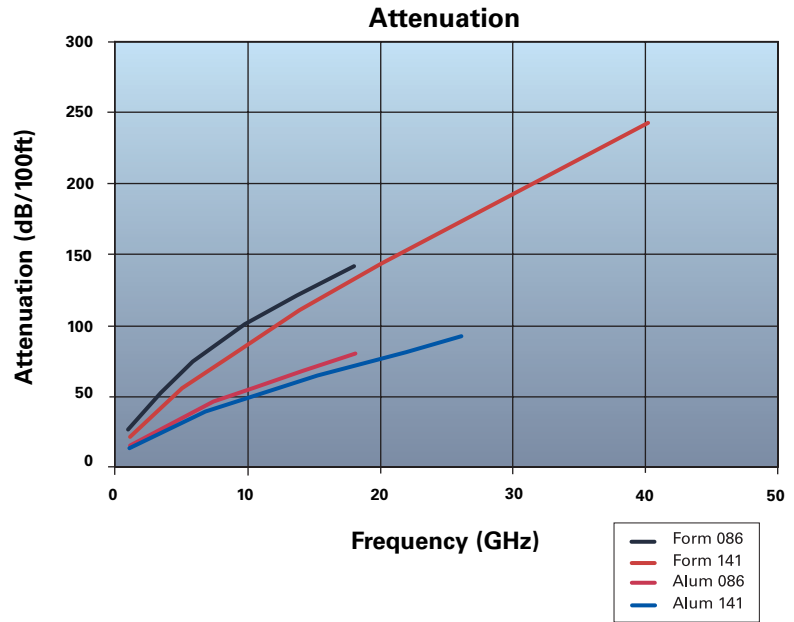
FORMABLE CABLE ASSEMBLIES

Features:

- Formable high-frequency cable
- Cost-saving alternative to semi-rigid
- Bend without specialized equipment
- Various standard coaxial connectors
- High shielding
- Low attenuation
- RG cable sizes ranging from approx. .072 to .500 inch (1.8 to 12.7 mm) diameter
- Economical microwave interconnect solutions

Applications:

- OEM market
- Internal interconnect
- Control and command
- Radar and EW systems
- Semi-rigid replacements



Typical Cable Types

Cable Type	O.D. Diameter Inch (mm)	Shield Material	Frequency GHz (Max.)
Formable .086	0.086 (2.2)	Tin Soaked Copper Braid	20
Formable .141	0.141 (3.6)	Tin Soaked Copper Braid	20
Aluminum .086	0.086 (2.2)	Tin Plated Aluminum	65
Aluminum .141	0.141 (3.6)	Tin Plated Aluminum	35

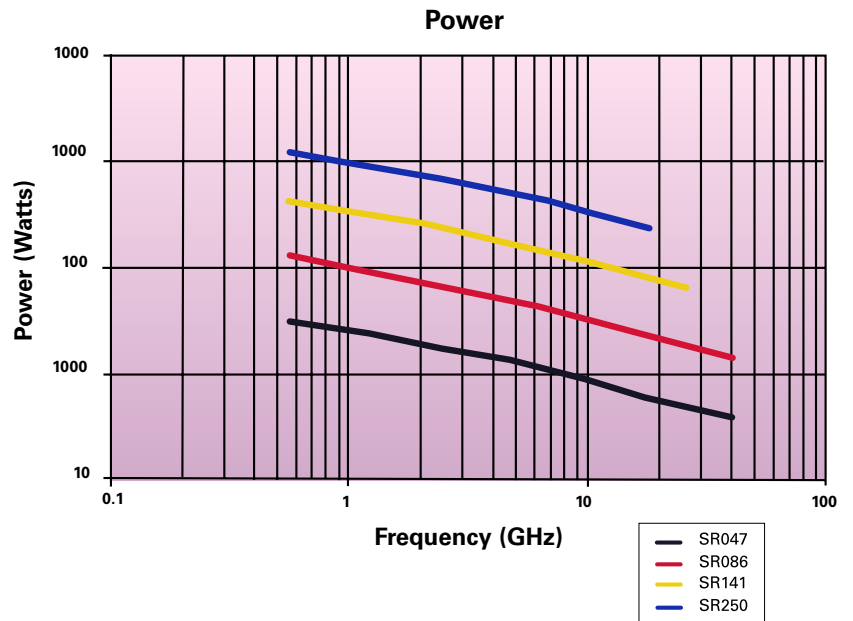
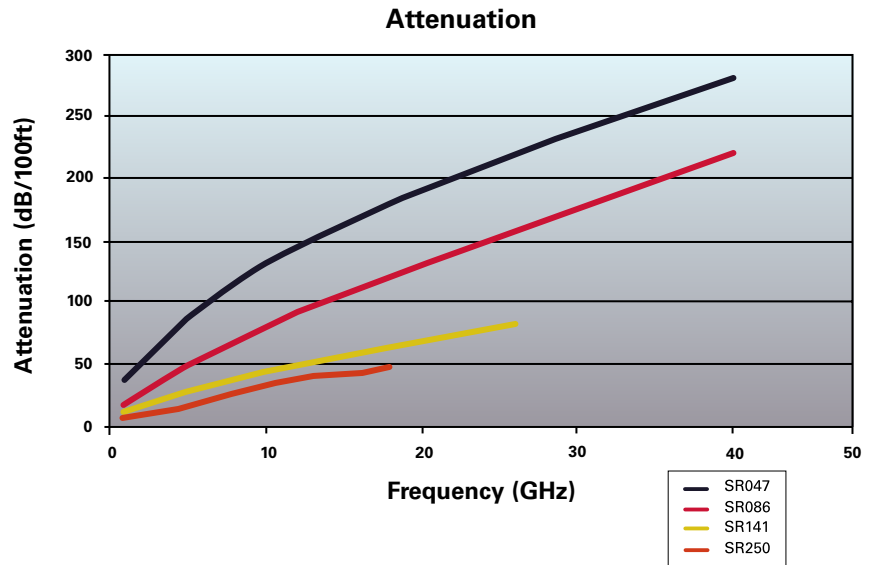
SEMI-RIGID CABLE ASSEMBLIES

Features:

- Standard MIL-DTL-17 specification cable
- Various standard coaxial connectors
- High shielding
- Tight bend radius
- RG cable sizes ranging from approx. .072 to .500 inch (1.8 to 12.7 mm) diameter
- Economical microwave interconnect solutions

Applications:

- OEM market
- Internal interconnect
- Wireless and GPS
- Control and command
- Radar and EW systems
- High-shielding requirements
- Instrumentation



Typical Cable Types

Semi-Rigid Cable	MIL-DTL-17 Number	O.D. Diameter Inches (mm)	Frequency GHz (Max.)	Jacket Type
SR047	M17/151	0.047 (1.2)	110	Copper/Tin Plated Copper
SR086	M17/133	0.086 (2.2)	80	Copper/Tin Plated Copper
SR141	M17/130	0.141 (3.6)	35	Copper/Tin Plated Copper
SR250	M17/129	0.250 (6.4)	18	Copper/Tin Plated Copper or Tin Plated Aluminum

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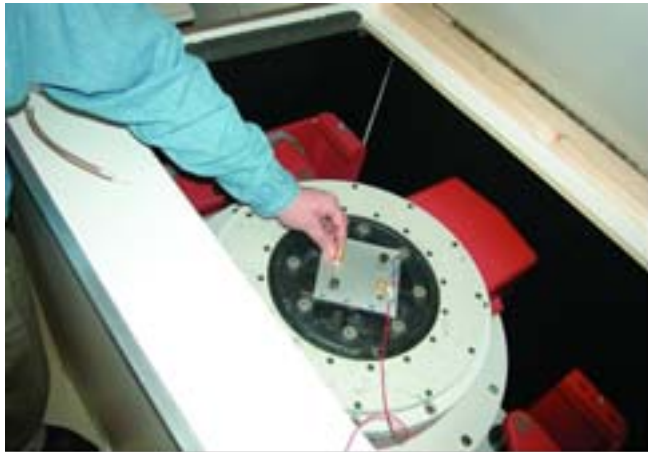
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CABLE ASSEMBLY TESTING AND QUALITY ASSURANCE

Electrical Testing

- Frequency ranges from DC to 50 GHz
- Insertion loss
- VSWR
- Phase and phase matching
- RF leakage
- Continuity
- DWV



Environmental and Mechanical Testing

- Testing done in house per MIL-STD-202 and MIL-STD-810.
- Failure analysis/DPA capabilities include:
 - XRF
 - Cross section
 - High-magnification photography
 - Solderability
- Tensile strength
- Salt fog
- Shock and vibration
- Altitude
- Industrial corrosion

Quality Assurance

- ISO 9001-2000 registered
- Quality approved to MIL-I-45208 and MIL-STD-790
- Calibration system compliant to ISO10012-2
- Operators trained in IPC-STD-001C requirement for soldering electrical and electronic assemblies

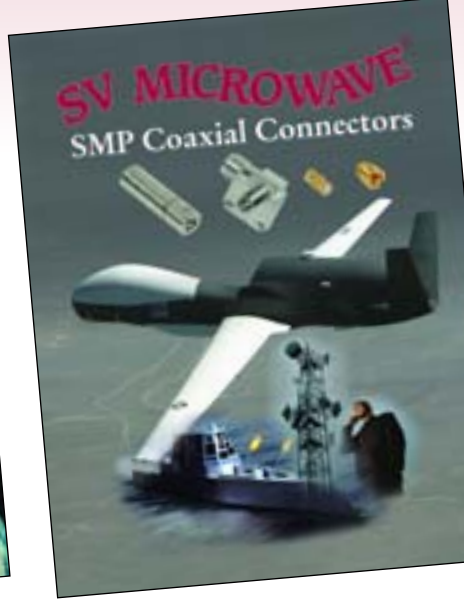
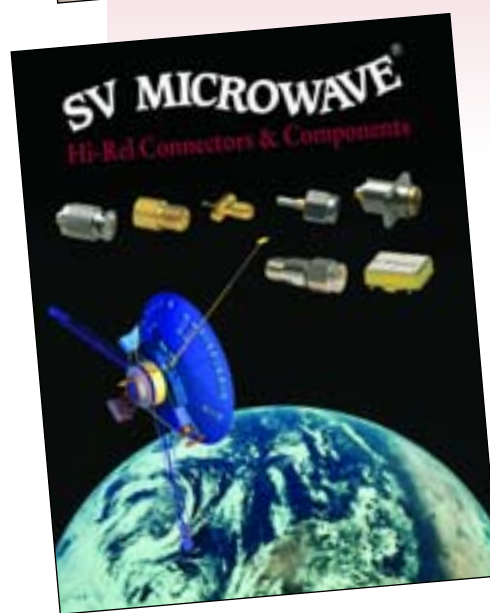
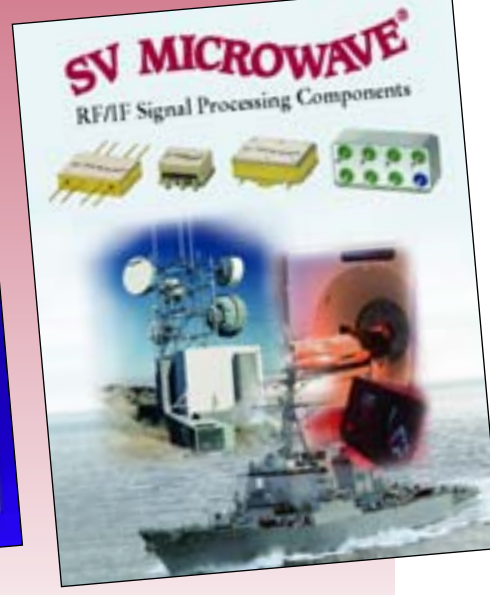
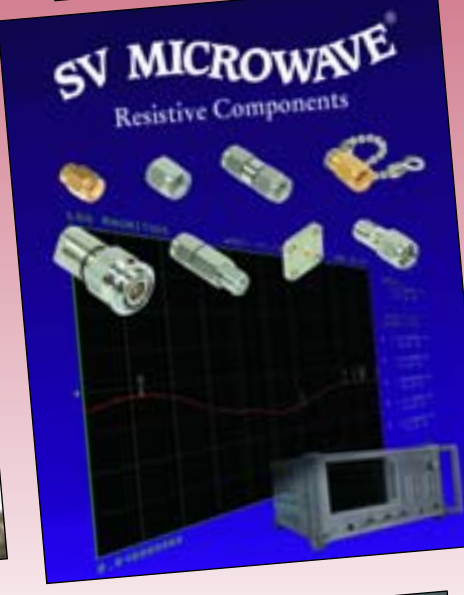
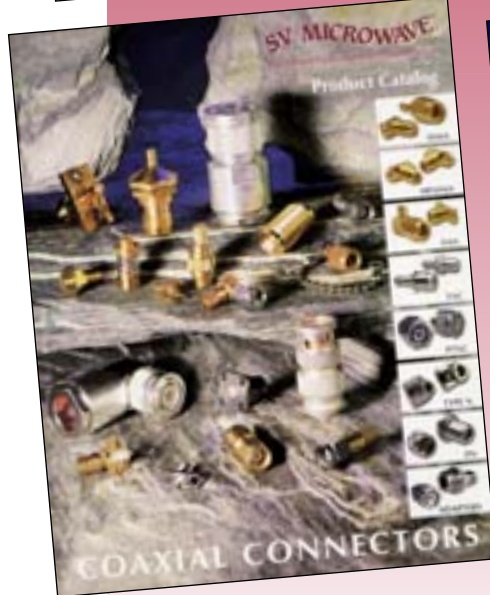
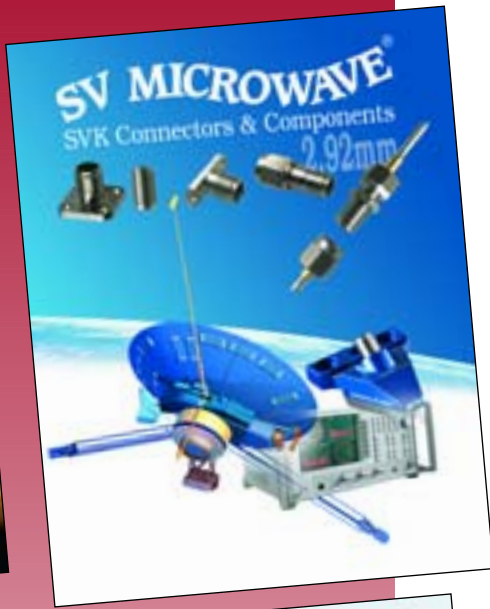
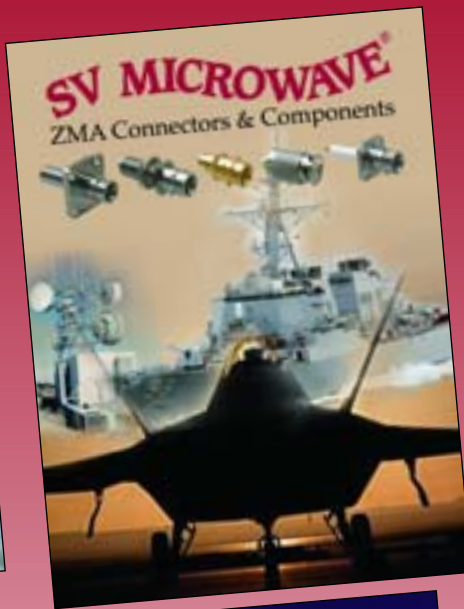
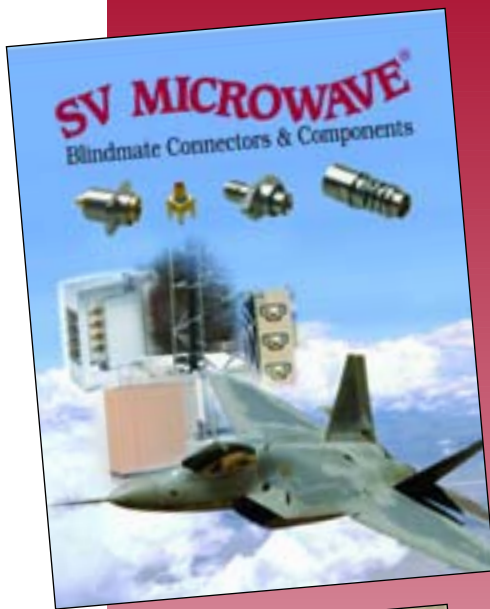


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