

Waveguide to Coaxial Adapters

FEATURES:

- ❖ Full waveguide band operation
- ❖ Low insertion loss
- ❖ Low VSWR
- ❖ Rugged mechanical construction

APPLICATIONS:

- ❖ Test setups
- ❖ Instrumentation
- ❖ Subsystems
- ❖ Transceivers



CWK Series

DESCRIPTION:

Cernex CWK Series waveguide to coaxial line adapters are available in several waveguide bands covering the frequency range of 1.7 to 70GHz. These adapters are especially designed for full waveguide band operation with exceptional high performance. The adapters are ideal choices where a waveguide to coaxial transition is required.

SPECIFICATIONS:

Model Number	Frequency (GHz)	Freq. Band	Waveguide Size	Flange Type	Coaxial Connector Type	Insertion Loss (dB max)	VSWR Max
CWK430010203SF	1.7-2.6	L	WR-430	CPR430	SMA-F	0.3	1.25:1
CWK430010203SM	1.7-2.6	L	WR-430	CPR430	SMA-M	0.3	1.25:1
CWK430010203NF	1.7-2.6	L	WR-430	CPR430	N-F	0.3	1.25:1
CWK430010203NM	1.7-2.6	L	WR-430	CPR430	N-M	0.3	1.25:1
CWK340020303SF	2.3-3.3	S	WR-340	UG1347/U	SMA-F	0.3	1.25:1
CWK340020303SM	2.3-3.3	S	WR-340	UG1347/U	SMA-M	0.3	1.25:1
CWK340020303NF	2.3-3.3	S	WR-340	UG1347/U	N-F	0.3	1.25:1
CWK340020303NM	2.3-3.3	S	WR-340	UG1347/U	N-M	0.3	1.25:1
CWK284020303SF	2.6-3.95	S	WR-284	CPR284	SMA-F	0.3	1.25:1
CWK284020303SM	2.6-3.95	S	WR-284	CPR284	SMA-M	0.3	1.25:1
CWK284020303NF	2.6-3.95	S	WR-284	CPR284	N-F	0.3	1.25:1
CWK284020303NM	2.6-3.95	S	WR-284	CPR284	N-M	0.3	1.25:1
CWK229030403SF	3.6-4.2	C	WR-229	CPR229	SMA-F	0.3	1.25:1
CWK229030403SM	3.6-4.2	C	WR-229	CPR229	SMA-M	0.3	1.25:1
CWK229030403NF	3.6-4.2	C	WR-229	CPR229	N-F	0.3	1.25:1
CWK229030403NM	3.6-4.2	C	WR-229	CPR229	N-M	0.3	1.25:1
CWK187040503SF	4.4-5.8	C	WR-187	CPR187	SMA-F	0.3	1.25:1
CWK187040503SM	4.4-5.8	C	WR-187	CPR187	SMA-M	0.3	1.25:1

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CWK187040503NF	4.4-5.8	C	WR-187	CPR187	N-F	0.3	1.25:1
CWK187040503NM	4.4-5.8	C	WR-187	CPR187	N-M	0.3	1.25:1
CWK159040703SF	4.9-7.05	C	WR-159	CMR-159	SMA-F	0.3	1.25:1
CWK159040703SM	4.9-7.05	C	WR-159	CMR-159	SMA-M	0.3	1.25:1
CWK159040703NF	4.9-7.05	C	WR-159	CMR-159	N-F	0.3	1.25:1
CWK159040703NM	4.9-7.05	C	WR-159	CMR-159	N-M	0.3	1.25:1
CWK137050803SF	5.8-8.2	C	WR-137	CPR137	SMA-F	0.3	1.25:1
CWK137050803SM	5.8-8.2	C	WR-137	CPR137	SMA-M	0.3	1.25:1
CWK137050803NF	5.8-8.2	C	WR-137	CPR137	N-F	0.3	1.25:1
CWK137050803NM	5.8-8.2	C	WR-137	CPR137	N-M	0.3	1.25:1
CWK112071004SF	7.05-10	C	WR-112	CPR112	SMA-F	0.4	1.25:1
CWK112071004SM	7.05-10	C	WR-112	CPR112	SMA-M	0.4	1.25:1
CWK112071004NF	7.05-10	C	WR-112	CPR112	N-F	0.4	1.25:1
CWK112071004NM	7.05-10	C	WR-112	CPR112	N-M	0.4	1.25:1
CWK90081204SF	8.2-12.4	X	WR-90	UG39/U	SMA-F	0.4	1.25:1
CWK90081204SM	8.2-12.4	X	WR-90	UG39/U	SMA-M	0.4	1.25:1
CWK90081204NF	8.2-12.4	X	WR-90	UG39/U	N-F	0.4	1.25:1
CWK90081204NM	8.2-12.4	X	WR-90	UG39/U	N-M	0.4	1.25:1
CWK75101504SF	10-15	XKu	WR-75	UBR120	SMA-F	0.4	1.25:1
CWK75101504SM	10-15	XKu	WR-75	UBR120	SMA-M	0.4	1.25:1
CWK75101504NF	10-15	XKu	WR-75	UBR120	N-F	0.4	1.25:1
CWK75101504NM	10-15	XKu	WR-75	UBR120	N-M	0.4	1.25:1
CWK62121803SF	12-18	Ku	WR-62	UG419/U	SMA-F	0.3	1.2:1
CWK62121803SM	12-18	Ku	WR-62	UG419/U	SMA-M	0.3	1.2:1
CWK62121805NF	12-18	Ku	WR-62	UG419/U	N-F	0.5	1.25:1
CWK62121805NM	12-18	Ku	WR-62	UG419/U	N-M	0.5	1.25:1
CWK51172105SF	17.7-21.2	K	WR-51	UBR180	SMA-F	0.5	1.30:1
CWK51172105SM	17.7-21.2	K	WR-51	UBR180	SMA-M	0.5	1.30:1
CWK51172105KF	17.7-21.2	K	WR-51	UBR180	K-F	0.5	1.30:1
CWK42182405SF	18-24	K	WR-42	UG595/U	SMA-F	0.5	1.25:1
CWK42182405SM	18-24	K	WR-42	UG595/U	SMA-M	0.5	1.25:1
CWK42182603F	18-26.5	K	WR-42	UG595/U	K-F	0.35	1.2:1
CWK42182603M	18-26.5	K	WR-42	UG595/U	K-M	0.35	1.2:1
CWK42182605F	18-26.5	K	WR-42	UG595/U	K-F	0.5	1.25:1
CWK42182605FCHK	18-26.5	K	WR-42	CHOKE	K-F	0.5	1.25:1
CWK42182605M	18-26.5	K	WR-42	UG595/U	K-M	0.5	1.25:1
CWK42182605MCHK	18-26.5	K	WR-42	CHOKE	K-M	0.5	1.25:1

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Model Number	Frequency (GHz)	Freq. Band	Waveguide Size	Flange Type	Coaxial Connector Type	Insertion Loss (dB max)	VSWR Max
CWK42182603F4	18-26.5	K	WR-42	UG595/U	2.4mm(F)	0.35	1.25:1
CWK42182603M4	18-26.5	K	WR-42	UG595/U	2.4mm(M)	0.35	1.25:1
CWK34223305F	22-33	Kb	WR-34	UG1530/U	K-F	0.55	1.25:1
CWK34223305M	22-33	Kb	WR-34	UG1530/U	K-M	0.55	1.25:1
CWK34223303F	22-33	Kb	WR-34	UG1530/U	K-F	0.35	1.2:1
CWK34223303M	22-33	Kb	WR-34	UG1530/U	K-M	0.35	1.2:1
CWK28264005F	26.5-40	Ka	WR-28	UG599/U	K-F	0.55	1.25:1
CWK28264005FCHK	26.5-40	Ka	WR-28	CHOKE	K-F	0.55	1.25:1
CWK28264005M	26.5-40	Ka	WR-28	UG599/U	K-M	0.5	1.3:1
CWK28264005MCHK	26.5-40	Ka	WR-28	CHOKE	K-M	0.5	1.3:1
CWK28264003F	26.5-40	Ka	WR-28	UG599/U	K-F	0.35	1.2:1
CWK28264003M	26.5-40	Ka	WR-28	UG599/U	K-M	0.35	1.2:1
CWK28264003F4	26.5-40	Ka	WR-28	UG599/U	2.4mm(F)	0.35	1.2:1
CWK28264003M4	26.5-40	Ka	WR-28	UG599/U	2.4mm(M)	0.35	1.2:1
CWK22335004F	33-50	Q	WR-22	UG383/U	2.4mm(F)	0.45	1.3:1
CWK22335004FCHK	33-50	Q	WR-22	CHOKE	2.4mm(F)	0.45	1.3:1
CWK22335004M	33-50	Q	WR-22	UG383/U	2.4mm(M)	0.45	1.3:1
CWK22335004MCHK	33-50	Q	WR-22	CHOKE	2.4mm(M)	0.45	1.3:1
CWK22335004SQF	33-50	Q	WR-22	SQ Flange	2.4mm(F)	0.55	1.3:1
CWK22335004SQM	33-50	Q	WR-22	SQ Flange	2.4mm(M)	0.55	1.3:1
CWK22335004F18	33-50	Q	WR-22	SQ Flange	1.85mm(F)	0.45	1.3:1
CWK19406004F	40-60	U	WR-19	UG383/U	1.85mm(F)	0.45	1.35:1
CWK19406004M	40-60	U	WR-19	UG383/U	1.85mm(M)	0.45	1.35:1
CWK15507505F	50-75	V	WR-15	UG385/U	1.85mm(F)	0.55	1.4:1
CWK15507505M	50-75	V	WR-15	UG385/U	1.8mm(M)	0.55	1.4:1
CWK12609006VF▲	60-90	E	WR-12	UG387/U	1.85mm(F)	0.65	1.8:1
CWK12609006VM▲	60-90	E	WR-12	UG387/U	1.85mm(M)	0.65	1.8:1
CWK126090061F	60-90	E	WR-12	UG387/U	1mm(F)	1.0typ	2:1 typ
CWK126090061M	60-90	E	WR-12	UG387/U	1mm(M)	1.0 typ	2:1 typ
CWK10751101VF▲	75-110	W	WR-10	UG387/U-M	1.85mm(F)	1.0 typ	2:1 typ
CWK10751101VM▲	75-110	W	WR-10	UG387/U-M	1.85mm(M)	1.0 typ	2:1 typ
CWK10751101F▲	75-110	W	WR-10	UG387/U-M	1mm(F)	1.0 typ	2:1 typ
CWK10751101M▲	75-110	W	WR-10	UG387/U-M	1mm(M)	1.0 typ	2:1 typ

▲ DEGRADED PERFORMANCE > 70GHz

Waveguide to Coaxial Adapters

IN LINE: (END LAUNCH)

Model Number	Frequency (GHz)	Bandwidth (GHz)	Waveguide Size	Flange Type	Coaxial Connector Type	Insertion Loss (dB max)	VSWR Max
CWKE187050501SG	5.0-5.8	0.20	WR187	CPR187	SMA-F	0.1*	1.15:1
CWKE187050501NG	5.0-5.8	0.20	WR187	CPR187	N-F	0.1*	1.15:1
CWKE137060701SG	6.0-7.8	0.20	WR137	PDR-70	SMA-F	0.1*	1.15:1
CWKE137060701NG	6.0-7.8	0.20	WR137	PDR-70	N-F	0.1*	1.15:1
CWKE112070801SG	7.7-8.5	0.20	WR112	CPR112	SMA-F	0.1*	1.15:1
CWKE112070801NG	7.7-8.5	0.20	WR112	CPR112	N-F	0.1*	1.15:1
CWKE90081201SG	8.8-12.0	0.30	WR90	UG39/U	SMA-F	0.1*	1.15:1
CWKE75101601SG	10.0-16.0	0.30	WR75	UBR120	SMA-F	0.1*	1.15:1
CWKE62121801SG	12.7-18.0	0.50	WR62	UG419/U	SMA-F	0.1*	1.15:1
CWKE42182605F	18-26.5	2.00	WR-42	UG599/U	2.92mm-F	0.5	1.35:1
CWKE180D184005F	18-40.0	18-40.0	WRD-180	UG1587	2.92mm-F	0.5	1.6:1
CWKE28264005F	26.5-40	2.00	WR-28	UG599/U	2.92mm-F	0.5	1.35:1

* Only for the specific narrow Bandwidth

WRD ADAPTERS:

Model Number	Frequency (GHz)	Waveguide Size	Flange Type	Coaxial Connector Type	Insertion Loss (dB typ.)	VSWR Max
CWK200D020401F	2.0-4.8	WRD200	COVER	SMA-F	0.1	1.3:1
CWK200D020401M	2.0-4.8	WRD200	COVER	SMA-M	0.1	1.3:1
CWK250D020701F	2.6-7.8	WRD250	COVER	SMA-F	0.1	1.25:1
CWK250D020701M	2.6-7.8	WRD250	COVER	SMA-M	0.1	1.25:1
CWK350D030801F	3.5-8.2	WRD350	COVER	SMA-F	0.1	1.25:1
CWK350D030801M	3.5-8.2	WRD350	COVER	SMA-M	0.1	1.25:1
CWK475D041101F	4.75-11.0	WRD475	COVER	SMA-F	0.1	1.25:1
CWK475D041101M	4.75-11.0	WRD475	COVER	SMA-M	0.1	1.25:1
CWK750D071801F	7.5-18.0	WRD750	COVER	N-F	0.15	1.25:1
CWK750D071801M	7.5-18.0	WRD750	COVER	N-M	0.15	1.25:1
CWK580D051801F	5.8-16.0	WRD580	COVER	SMA-F	0.1	1.25:1
CWK580D051801M	5.8-16.0	WRD580	COVER	SMA-M	0.1	1.25:1
CWK650D061801F	6.5-18.0	WRD650	COVER	SMA-F	0.1	1.25:1
CWK650D061801M	6.5-18.0	WRD650	COVER	SMA-M	0.1	1.25:1
CWK180D184001F	18.0-40.0	WRD180	COVER	K-F	0.1	1.25:1
CWK180D184001M	18.0-40.0	WRD180	COVER	K-M	0.1	1.25:1
CWK180D18400F4	18.0-40.0	WRD180	COVER	2.4mm-F	0.1	1.5:1

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CWK180D18400M4	18.0-40.0	WRD180	COVER	2.4mm-M	0.1	1.5:1