



## Fixed Setting Attenuators (Waveguide & Coaxial)

### FEATURES:

- ❖ Rugged construction
- ❖ Full band operation
- ❖ Up to 60 dB attenuation
- ❖ DC-180GHz

### APPLICATIONS:

- ❖ Test equipment
- ❖ Subsystems
- ❖ Prototypes



**CFA Series**

### DESCRIPTION:

Cernex CFA Series fixed setting attenuators are offered for the frequency range of DC to 180 GHz in seven waveguide bands. The standard attenuation levels for fixed attenuators are 3, 6, 10, 20, 30 and 60 dB. The fixed setting attenuators are typically used in test set ups and prototype assemblies where certain attenuation are required.

### SPECIFICATIONS:

#### COAXIAL HIGH POWER:

Model No.	Frequency Range (GHz)	Attenuation	VSWR (Max)	Power (W)	Size LXWXH (mm)	Connector Type
CFADC01305000TM	DC-1.0	30dB	1.4	5000	*	N
CFADC01405000TM	DC-1.0	40dB	1.4	5000	*	N
CFADC01505000TM	DC-1.0	50dB	1.4	5000	*	N
CFADC01605000TM	DC-1.0	60dB	1.4	5000	*	N
CFADC020530S	DC-2.0	5±0.5dB	1.20	30	125X70X70	N
CFADC021030S	DC-2.0	10±1dB	1.20	30	125X70X70	N
CFADC022030S	DC-2.0	20±1dB	1.20	30	125X70X70	N
CFADC023030S	DC-2.0	30±1dB	1.20	30	125X70X70	N
CFADC020550S	DC-2.0	5±0.5dB	1.20	50	125X70X70	N
CFADC021050S	DC-2.0	10±1dB	1.20	50	125X70X70	N
CFADC022050S	DC-2.0	20±1dB	1.20	50	125X80X70	N
CFADC023050S	DC-2.0	30±1dB	1.20	50	125X80X70	N
CFADC0210100T	DC-2.0	10±0.4dB	1.20	100	76X86X230	N
CFADC0220100T	DC-2.0	20±0.7dB	1.20	100	76X86X230	N
CFADC0230100T	DC-2.0	30±1.0dB	1.20	100	76X86X230	N
CFADC0240100T	DC-2.0	40±1.2dB	1.20	100	76X86X230	N



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Model No.	Frequency Range (GHz)	Attenuation	VSWR (Max)	Power (W)	Size LXWXH (mm)	Connector Type
CFADC0250100T	DC-2.0	50±1.4dB	1.20	100	76X86X230	N
CFADC0210150T	DC-2.0	10±0.4dB	1.20	150	115X86X277	N
CFADC0220150T	DC-2.0	20±0.7dB	1.20	150	115X86X277	N
CFADC0230150T	DC-2.0	30±1.0dB	1.20	150	115X86X277	N
CFADC0240150T	DC-2.0	40±1.2dB	1.20	150	115X86X277	N
CFADC0250150T	DC-2.0	50±1.5dB	1.20	150	115X86X277	N
CFADC0210200T	DC-2.0	10±0.4dB	1.20	200	115X86X277	N
CFADC0220200T	DC-2.0	20±0.7dB	1.20	200	115X86X277	N
CFADC0230200T	DC-2.0	30±1.0dB	1.20	200	115X86X277	N
CFADC0240200T	DC-2.0	40±1.2dB	1.20	200	115X86X277	N
CFADC0240200T	DC-2.0	50±1.5dB	1.20	200	115X86X277	N
CFADC0210250T	DC-2.0	10±0.4dB	1.20	250	132X140X353	N
CFADC0220250T	DC-2.0	20±0.7dB	1.20	250	132X140X353	N
CFADC0230250T	DC-2.0	30±1.0dB	1.20	250	132X140X353	N
CFADC0240250T	DC-2.0	40±1.2dB	1.20	250	132X140X353	N
CFADC0250250T	DC-2.0	50±1.5dB	1.20	250	132X140X353	N
CFADC0210300T	DC-2.0	10±0.4dB	1.20	300	132X140X353	N
CFADC0220300T	DC-2.0	20±0.7dB	1.20	300	132X140X353	N
CFADC0230300T	DC-2.0	30±1.0dB	1.20	300	132X140X353	N
CFADC0240300T	DC-2.0	40±1.2dB	1.20	300	132X140X353	N
CFADC0250300T	DC-2.0	50±1.5dB	1.20	300	132X140X353	N
CFADC0210400T	DC-2.0	10±0.4dB	1.20	400	132X140X437	N
CFADC0220400T	DC-2.0	20±0.7dB	1.20	400	132X140X437	N
CFADC0230400T	DC-2.0	30±1.0dB	1.20	400	132X140X437	N
CFADC0240400T	DC-2.0	40±1.2dB	1.20	400	132X140X437	N
CFADC0250400T	DC-2.0	50±1.5dB	1.20	400	132X140X437	N
CFADC0210500T	DC-2.0	10±0.4dB	1.20	500	132X140X437	N
CFADC0220500T	DC-2.0	20±0.7dB	1.20	500	132X140X437	N
CFADC0230500T	DC-2.0	30±1.0dB	1.20	500	132X140X437	N
CFADC0240500T	DC-2.0	40±1.2dB	1.20	500	132X140X437	N
CFADC0250500T	DC-2.0	50±1.5dB	1.20	500	132X140X437	N
CFADC02101000T	DC-2.0	10±0.4dB	1.20	1000	152X260X610	N
CFADC02201000T	DC-2.0	20±0.7dB	1.20	1000	152X260X610	N
CFADC02301000T	DC-2.0	30±1.0dB	1.20	1000	152X260X610	N
CFADC02401000T	DC-2.0	40±1.2dB	1.20	1000	152X260X610	N
CFADC02501000T	DC-2.0	50±1.5dB	1.20	1000	152X260X610	N



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Model No.	Frequency Range (GHz)	Attenuation	VSWR (Max)	Power (W)	Size LXWXH (mm)	Connector Type
CFADC02302000TM	DC-2.0	30dB	1.4	2000	*	N
CFADC02402000TM	DC-2.0	40dB	1.4	2000	*	N
CFADC02502000TM	DC-2.0	50dB	1.4	2000	*	N
CFADC02602000TM	DC-2.0	60dB	1.4	2000	*	N
CFADC02303000TM	DC-2.0	30dB	1.4	3000	*	N
CFADC02403000TM	DC-2.0	40dB	1.4	3000	*	N
CFADC02503000TM	DC-2.0	50dB	1.4	3000	*	N
CFADC02603000TM	DC-2.0	60dB	1.4	3000	*	N
CFADC02055S	DC-2.5	5±0.5dB	1.20	5	30X19X18	SMA/N
CFADC02105S	DC-2.5	10±0.5dB	1.20	5	30X19X18	SMA/N
CFADC02155S	DC-2.5	15±0.5dB	1.20	5	30X19X18	SMA/N
CFADC02205S	DC-2.5	20±0.5dB	1.20	5	30X19X18	SMA/N
CFADC02255S	DC-2.5	25±0.5dB	1.20	5	30X19X18	SMA/N
CFADC020510S	DC-2.5	5±0.5dB	1.20	10	30X19X18	SMA/N
CFADC021010S	DC-2.5	10±0.5dB	1.20	10	30X19X18	SMA/N
CFADC021510S	DC-2.5	15±0.5dB	1.20	10	30X19X18	SMA/N
CFADC022010S	DC-2.5	20±0.5dB	1.20	10	30X19X18	SMA/N
CFADC022510S	DC-2.5	25±0.5dB	1.20	10	30X19X18	SMA/N
CFADC023010S	DC-2.5	30±0.5dB	1.20	10	30X19X18	SMA/N
CFADC03035H	DC-3.0	3±0.3dB	1.20	5	*	N
CFADC03055H	DC-3.0	5±0.5dB	1.20	5	*	N
CFADC03065H	DC-3.0	6±0.5dB	1.20	5	*	N
CFADC03075H	DC-3.0	7±0.5dB	1.20	5	*	N
CFADC03105H	DC-3.0	10±0.7dB	1.20	5	*	N
CFADC03155H	DC-3.0	15±0.75dB	1.20	5	*	N
CFADC03205H	DC-3.0	20±0.8dB	1.20	5	*	N
CFADC03255H	DC-3.0	25±1.0dB	1.20	5	*	N
CFADC03305H	DC-3.0	30±1.0dB	1.20	5	*	N
CFADC041050T	DC-4.0	10±0.5dB	1.35	50	76X86X170	N
CFADC042050T	DC-4.0	20±1.0dB	1.35	50	76X86X170	N
CFADC043050T	DC-4.0	30±1.2dB	1.35	50	76X86X170	N
CFADC044050T	DC-4.0	40±1.5dB	1.35	50	76X86X170	N
CFADC041080TM	DC-4.0	10dB	1.10-1.35	80	*	SMA/N
CFADC042080TM	DC-4.0	20dB	1.10-1.35	80	*	SMA/N
CFADC043080TM	DC-4.0	30dB	1.10-1.35	80	*	SMA/N



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Model No.	Frequency Range (GHz)	Attenuation	VSWR (Max)	Power (W)	Size LXWXH (mm)	Connector Type
CFADC0410100T	DC-4.0	10±0.5dB	1.35	100	76X86X230	N
CFADC0420100T	DC-4.0	20±1.0dB	1.35	100	76X86X230	N
CFADC0430100T	DC-4.0	30±1.2dB	1.35	100	76X86X230	N
CFADC0440100T	DC-4.0	40±1.5dB	1.35	100	76X86X230	N
CFADC0450100T	DC-4.0	50±1.7dB	1.35	100	76X86X230	N
CFADC0410150T	DC-4.0	10±0.5dB	1.35	150	115X86X277	N
CFADC0420150T	DC-4.0	20±1.0dB	1.35	150	115X86X277	N
CFADC0430150T	DC-4.0	30±1.2dB	1.35	150	115X86X277	N
CFADC0440150T	DC-4.0	40±1.5dB	1.35	150	115X86X277	N
CFADC0450150T	DC-4.0	50±1.7dB	1.35	150	115X86X277	N
CFADC0410200T	DC-4.0	10±0.5dB	1.35	200	115X86X277	N
CFADC0420200T	DC-4.0	20±1.0dB	1.35	200	115X86X277	N
CFADC0430200T	DC-4.0	30±1.2dB	1.35	200	115X86X277	N
CFADC0440200T	DC-4.0	40±1.5dB	1.35	200	115X86X277	N
CFADC0440800TM	DC-4.0	40dB	1.2-1.5	800	*	N
CFADC0450800TM	DC-4.0	50dB	1.2-1.5	800	*	N
CFADC0460800TM	DC-4.0	60dB	1.2-1.5	800	*	N
CFADC0450200T	DC-4.0	50±1.7dB	1.35	200	115X86X277	N
CFADC0410250T	DC-4.0	10±0.5dB	1.35	250	132X140X353	N
CFADC0420250T	DC-4.0	20±1.0dB	1.35	250	132X140X353	N
CFADC0430250T	DC-4.0	30±1.2dB	1.35	250	132X140X353	N
CFADC0440250T	DC-4.0	40±1.5dB	1.35	250	132X140X353	N
CFADC0450250T	DC-4.0	50±1.7dB	1.35	250	132X140X353	N
CFADC0410300T	DC-4.0	10±0.5dB	1.35	300	132X140X353	N
CFADC0420300T	DC-4.0	20±1.0dB	1.35	300	132X140X353	N
CFADC0430300T	DC-4.0	30±1.2dB	1.35	300	132X140X353	N
CFADC0440300T	DC-4.0	40±1.5dB	1.35	300	132X140X353	N
CFADC0450300T	DC-4.0	50±1.7dB	1.35	300	132X140X353	N
CFADC0410400T	DC-4.0	10±0.5dB	1.35	400	132X140X437	N
CFADC0420400T	DC-4.0	20±1.0dB	1.35	400	132X140X437	N
CFADC0430400T	DC-4.0	30±1.2dB	1.35	400	132X140X437	N
CFADC0440400T	DC-4.0	40±1.5dB	1.35	400	132X140X437	N
CFADC0450400T	DC-4.0	50±1.7dB	1.35	400	132X140X437	N
CFADC0410500T	DC-4.0	10±0.5dB	1.35	500	132X140X437	N
CFADC0420500T	DC-4.0	20±1.0dB	1.35	500	132X140X437	N
CFADC0430500T	DC-4.0	30±1.2dB	1.35	500	132X140X437	N



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Model No.	Frequency Range (GHz)	Attenuation	VSWR (Max)	Power (W)	Size LXWXH (mm)	Connector Type
CFADC0440500T	DC-4.0	40±1.5dB	1.35	500	132X140X437	N
CFADC0450500T	DC-4.0	50±1.7dB	1.35	500	132X140X437	N
CFADC04101000T	DC-4.0	10±0.5dB	1.35	1000	152X260X610	N
CFADC04201000T	DC-4.0	20±1.0dB	1.35	1000	152X260X610	N
CFADC04301000T	DC-4.0	30±1.2dB	1.35	1000	152X260X610	N
CFADC04401000T	DC-4.0	40±1.5dB	1.35	1000	152X260X610	N
CFADC04501000T	DC-4.0	50±1.7dB	1.35	1000	152X260X610	N

OTHER FREQUENCY BANDS AND ATTENUATION VALUES ARE ALSO AVAILABLE.

\*CONSULT THE FACTORY

### COAXIAL TUBULAR:

Model No.	Frequency Range (GHz)	Attenuation	VSWR (Max)	Power (W)	Size LXWXH (mm)	Connector Type
CFADC03032H	DC-3.0	3±0.3dB	1.20	2	Φ 18 X 69.5	SMA/N
CFADC03052H	DC-3.0	5±0.5dB	1.20	2	Φ 18 X 69.5	SMA/N
CFADC03062H	DC-3.0	6±0.5dB	1.20	2	Φ 18 X 69.5	SMA/N
CFADC03072H	DC-3.0	7±0.5dB	1.20	2	Φ 18 X 69.5	SMA/N
CFADC03102H	DC-3.0	10±0.7dB	1.20	2	Φ 18 X 69.5	SMA/N
CFADC03152H	DC-3.0	15±0.75dB	1.20	2	Φ 18 X 69.5	SMA/N
CFADC03202H	DC-3.0	20±0.8dB	1.20	2	Φ 18 X 69.5	SMA/N
CFADC03252H	DC-3.0	25±1.0dB	1.20	2	Φ 18 X 69.5	SMA/N
CFADC03302H	DC-3.0	30±1.0dB	1.20	2	Φ 18 X 69.5	SMA/N
CFADC04031T	DC-4.0	3±0.5dB	1.20	1	Φ 9.5 X 30	SMA
CFADC04061T	DC-4.0	6±0.5dB	1.20	1	Φ 9.5 X 30	SMA
CFADC04101T	DC-4.0	10±0.7dB	1.20	1	Φ 9.5 X 30	SMA
CFADC04201T	DC-4.0	20±1.0dB	1.20	1	Φ 9.5 X 30	SMA
CFADC04032T	DC-4.0	3±0.3dB	1.30	2	Φ 21 X 64	N
CFADC04062T	DC-4.0	6±0.3dB	1.30	2	Φ 21 X 64	N
CFADC04102T	DC-4.0	10±0.5dB	1.30	2	Φ 21 X 64	N
CFADC04152T	DC-4.0	15±0.8dB	1.30	2	Φ 21 X 64	N
CFADC04202T	DC-4.0	20±1.0dB	1.30	2	Φ 21 X 64	N
CFADC04302T	DC-4.0	30±1.5dB	1.30	2	Φ 21 X 64	N
CFADC04035T	DC-4.0	3±0.3dB	1.25	5	Φ 24 X 65	SMA



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CFADC04065T	DC-4.0	6±0.3dB	1.25	5	Φ 24 X 65	SMA
CFADC04105T	DC-4.0	10±0.5dB	1.25	5	Φ 24 X 65	SMA
CFADC04155T	DC-4.0	15±0.8dB	1.25	5	Φ 24 X 65	SMA
CFADC04205T	DC-4.0	20±1.0dB	1.25	5	Φ 24 X 65	SMA
CFADC04305T	DC-4.0	30±1.2dB	1.25	5	Φ 24 X 65	SMA
CFADC040325T	DC-4.0	3±0.3dB	1.35	25	Φ 44 X 88	N
CFADC040625T	DC-4.0	6±0.3dB	1.35	25	Φ 44 X 88	N
CFADC041025T	DC-4.0	10±0.5dB	1.35	25	Φ 44 X 88	N
CFADC041525T	DC-4.0	15±0.7dB	1.35	25	Φ 44 X 88	N
CFADC042025T	DC-4.0	20±0.8dB	1.35	25	Φ 44 X 88	N
CFADC043025T	DC-4.0	30±1.0dB	1.35	25	Φ 44 X 88	N
CFADC040330T	DC-4.0	3±0.3dB	1.35	30	Φ 44 X 70	N
CFADC040630T	DC-4.0	6±0.3dB	1.35	30	Φ 44 X 70	N
CFADC041030T	DC-4.0	10±0.5dB	1.35	30	Φ 44 X 70	N
CFADC041530T	DC-4.0	15±0.7dB	1.35	30	Φ 44 X 70	N
CFADC042030T	DC-4.0	20±0.8dB	1.35	30	Φ 44 X 70	N
CFADC043030T	DC-4.0	30±1.0dB	1.35	30	Φ 44 X 70	N
CFADC12031T	DC-12.4	3±0.5dB	1.35	1	Φ 9.5 X 30	SMA
CFADC12061T	DC-12.4	6±0.5dB	1.35	1	Φ 9.5 X 30	SMA
CFADC12101T	DC-12.4	10±1.0dB	1.35	1	Φ 9.5 X 30	SMA
CFADC12201T	DC-12.4	20±1.2dB	1.35	1	Φ 9.5 X 30	SMA
CFADC12032T	DC-12.4	3±0.4dB	1.35	2	Φ 21 X 64	N
CFADC12062T	DC-12.4	6±0.5dB	1.35	2	Φ 21 X 64	N
CFADC12102T	DC-12.4	10±0.7dB	1.35	2	Φ 21 X 64	N
CFADC12152T	DC-12.4	15±1.0dB	1.35	2	Φ 21 X 64	N
CFADC12202T	DC-12.4	20±1.2dB	1.35	2	Φ 21 X 64	N
CFADC12302T	DC-12.4	30±1.5dB	1.35	2	Φ 21 X 64	N
CFADC120310T	DC-12.4	3±0.4dB	1.40	10	Φ 35 X 64	SMA
CFADC120610T	DC-12.4	6±0.5dB	1.40	10	Φ 35 X 64	SMA
CFADC121010T	DC-12.4	10±0.7dB	1.40	10	Φ 35 X 64	SMA
CFADC121510T	DC-12.4	15±1.0dB	1.40	10	Φ 35 X 64	SMA
CFADC122010T	DC-12.4	20±1.2dB	1.40	10	Φ 35 X 64	SMA
CFADC123010T	DC-12.4	30±1.5dB	1.40	10	Φ 35 X 64	SMA
CFADC120315T	DC-12.4	3±0.4dB	1.40	15	Φ 35 X 64	N
CFADC120615T	DC-12.4	6±0.5dB	1.40	15	Φ 35 X 64	N
CFADC121015T	DC-12.4	10±0.7dB	1.40	15	Φ 35 X 64	N



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CFADC121515T	DC-12.4	15±1.0dB	1.40	15	Φ 35 X 64	N
CFADC122015T	DC-12.4	20±1.2dB	1.40	15	Φ 35 X 64	N
CFADC123015T	DC-12.4	30±1.5dB	1.40	15	Φ 35 X 64	N
CFADC120325T	DC-12.4	3±0.4dB	1.35	25	Φ 44 X 88	N
CFADC120625T	DC-12.4	6±0.5dB	1.35	25	Φ 44 X 88	N
CFADC121025T	DC-12.4	10±0.6dB	1.35	25	Φ 44 X 88	N
CFADC121525T	DC-12.4	15±0.8dB	1.35	25	Φ 44 X 88	N
CFADC122025T	DC-12.4	20±1.0dB	1.35	25	Φ 44 X 88	N
CFADC123025T	DC-12.4	30±1.2dB	1.35	25	Φ 44 X 88	N
CFADC120330T	DC-12.4	3±0.4dB	1.35	30	Φ 44 X 70	N
CFADC120630T	DC-12.4	6±0.5dB	1.35	30	Φ 44 X 70	N
CFADC121030T	DC-12.4	10±0.6dB	1.35	30	Φ 44 X 70	N
CFADC121530T	DC-12.4	15±0.8dB	1.35	30	Φ 44 X 70	N
CFADC122030T	DC-12.4	20±1.0dB	1.35	30	Φ 44 X 70	N
CFADC123030T	DC-12.4	30±1.2dB	1.35	30	Φ 44 X 70	N
CFADC121050T	DC-12.4	10±0.8dB	1.30	50	Φ 50 X 116	N
CFADC122050T	DC-12.4	20±1.0dB	1.30	50	Φ 50 X 116	N
CFADC123050T	DC-12.4	30±1.2dB	1.30	50	Φ 50 X 116	N
CFADC1210100TM	DC-12.4	10dB	1.10-1.35	100	*	SMA/N
CFADC1220100TM	DC-12.4	20dB	1.10-1.35	100	*	SMA/N
CFADC1230100TM	DC-12.4	30dB	1.10-1.35	100	*	SMA/N
CFADC1240100TM	DC-12.4	40dB	1.10-1.35	100	*	SMA/N
CFADC18031T	DC-18.0	3±0.7dB	1.50	1	Φ 9.5 X 30	SMA
CFADC18061T	DC-18.0	6±1.0dB	1.50	1	Φ 9.5 X 30	SMA
CFADC18101T	DC-18.0	10±1.2dB	1.50	1	Φ 9.5 X 30	SMA
CFADC18201T	DC-18.0	20±1.5dB	1.50	1	Φ 9.5 X 30	SMA
CFADC181025TM	DC-18.0	10±1dB	1.10-1.35	25	*	SMA/N
CFADC182025TM	DC-18.0	20±1.0dB	1.10-1.35	25	*	SMA/N
CFADC183025TM	DC-18.0	30±1.0dB	1.10-1.35	25	*	SMA/N

OTHER FREQUENCY BANDS AND ATTENUATION VALUES ARE ALSO AVAILABLE.

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### WAVEGUIDE:

Waveguide Band	C	X	Ku	Kc	K	Kb	Ka
Frequency Range (GHz)	4.90 to 7.05	8.20 to 12.40	12.4 to 18	15.0 to 22.0	18 to 26.5	22.0 to 33.0	26.5 to 40.0
Waveguide Size	WR-159	WR-90	WR-62	WR-51	WR-42	WR-34	WR-28
Fixed Attenuation Value (dB, Typ.)	3, 6, 10, 20 and 30						
VSWR (Typical)	1.15:1						
Level Setting Value (dB, Typical)	0 to 30						
VSWR (Typical)	1.15:1						
Power Rating (Maximum)	-	-	-	-	0.6		0.6

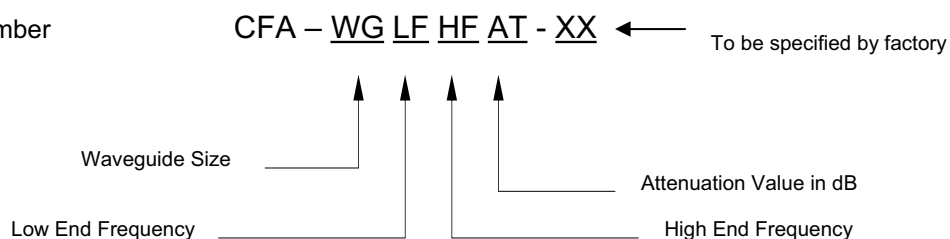
Waveguide Band	Q	U	V	E	W	F	D
Frequency Range (GHz)	33.0 to 50.0	40.0 to 60.0	50.0 to 75.0	60.0 to 90.0	75.0 to 110.0	90.0 to 140.0	140.0 to 180.0
Waveguide Size	WR-22	WR-19	WR-15	WR-12	WR-10	WR-8	WR-6
Fixed Attenuation Value (dB, Typ.)	3, 6, 10, 20 and 30						
VSWR (Typical)	1.15:1						
Level Setting Value (dB, Typical)	0 to 30						
VSWR (Typical)	1.15:1						
Power Rating (Maximum)	0.5	0.6	0.6	0.5	0.5	0.4	0.3

Contact factory for other attenuation values and specifications.

### HOW TO ORDER:

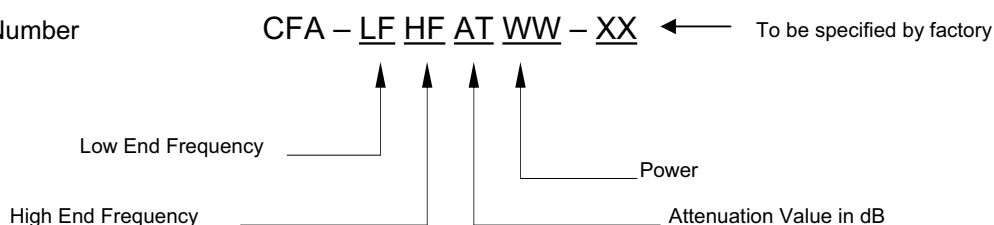
#### WAVEGUIDE:

Specify Model Number



#### COAXIAL:

Specify Model Number



**Example:** To order a full band WR-15 fixed attenuator with 20 dB attenuation level, specify CFA-15507520 .

CERNEX RESERVE THE RIGHT TO CHANGE THE SPECIFICATIONS WITHOUT NOTICE