

# MIXERS

## TRIPLE-BALANCED

$LO = +10 \text{ dBm}$

IMPROVED DYNAMIC RANGE

### SURFACE MOUNT



FREQUENCY RANGE (MHz)		CONVERSION LOSS (dB)		LO-RF ISOLATION (dB)			LO-IF ISOLATION (dB)			PACKAGE	PIN OUT	MODEL
RF/LO	IF	XMB TYP/MAX	FULL BAND TYP/MAX	LB TYP/MIN	MB TYP/MIN	UB TYP/MIN	LB TYP/MIN	MB TYP/MIN	UB TYP/MIN			
1 - 2500	1 - 2000	6.5/8.5	8.0/9.5	45/35	35/25	28/20	40/30	26/20	22/16	133	2	SMD-C8
5 - 1000	5 - 1000	6.5/8	7.5/9.5	35/20	40/30	30/23	30/20	30/20	25/20	159	1	SLD-K5
25 - 1800	25 - 1000	7.5/8.5	8/9	50/30	45/25	35/20	30/15	25/15	23/15	133	2	SMD-C5
50 - 2500	50 - 880	7/8.5	8/9.2	44/35	--/--	40/30	38/28	--/--	25/20	133	2	SMD-C7
800 - 3550♦	800 - 2500	--/--	10/11.8	--/--	--/--	28/20	--/--	--/--	23/15	133	2	SMD-C9**

### THROUGH HOLE (RELAY)



FREQUENCY RANGE (MHz)		CONVERSION LOSS (dB)		LO-RF ISOLATION (dB)			LO-IF ISOLATION (dB)			PACKAGE	PIN OUT	MODEL
RF/LO	IF	XMB TYP/MAX	FULL BAND TYP/MAX	LB TYP/MIN	MB TYP/MIN	UB TYP/MIN	LB TYP/MIN	MB TYP/MIN	UB TYP/MIN			
0.05 - 200	0.05 - 200	5.5/6.5	6.5/7	45/30	50/45	45/40	35/25	40/35	35/30	102	3	CLP-206
10 - 1000	5 - 500	6/7.5	7/8	50/40	40/30	30/20	40/25	30/18	25/15	102	4	CLP-2P4
0.05 - 1500	0.05 - 500	6/7.5	7/9	25/20	35/25	30/20	25/20	35/25	25/15	102	3	CLP-2H5
0.05 - 2000	0.05 - 500	6/8	7/9	25/20	40/30	30/20	25/20	40/30	25/15	102	3	CLP-2B6
10 - 2500	10 - 1000	7/8	7.5/8.5	55/35	45/30	35/25	35/20	35/20	27/20	103	3	CLP-205
500 - 3700	500 - 1000	--/--	9.5/11.5	45/25	45/25	45/25	40/20	40/20	40/20	103	3	CLP-210
10 - 2000	10 - 1000	6/8	6.5/8	32/25	35/25	35/25	33/20	30/20	30/20	105	5	CLP-3E6
10 - 2500	10 - 1000	7/8	7.5/8.5	55/35	45/30	35/25	35/20	30/20	27/20	105	6	CLP-305
10 - 3000	10 - 800	6.3/8	6.5/8.5	35/25	35/25	35/25	30/20	30/20	30/20	105	5	CLP-3B8
500 - 3700	500 - 1000	--/--	9.5/11.5	45/25	45/25	45/25	40/20	40/20	40/20	105	6	CLP-310

**NOTES:**

- 1dB Compression Point = +5 dBm (Typ)
  - IP3 (Input) = +18 dBm (Typ)
  - As IF frequency decrease below LF towards DC, conversion loss increases up to 8 dB higher than maximum.
  - Maximum Input Power without damage = 250 mW ave. cw
- ♦ LO Frequency is specified from 600 to 2595 MHz  
 \*\* UB identifies the full bandwidth specification

ALL MODELS	MODEL SMD-C7
XMB= 2LF to HF/2	XMB = 750 - 1000 MHz
FULL BAND = LF to HF	LB = 750 - 1200 MHz
LB= LF to 10LF	UB = 1200 - 2500 MHz
MB = 10LF to HF/2	
UB= HF/2 to HF	

**PIN-OUT TABLE**

	RF	LO	IF	GND	CASE GND	NO CONN.
#1	4	1	5	2,3,6	--	--
#2	1	2	3	4,5,6	--	--
#3	1	8	3	2,5,6,7	2,5,6,7	4
#4	8	1	3	2,5,6,7	2,5,6,7	4
#5	4	1	2	3	3	--
#6	1	4	2	3	3	--

GND = Ground externally  
 For pin location and package outline drawings, see back pages.  
 \*Connect pins together externally.

# MIXERS

## TRIPLE-BALANCED

$LO = +10 \text{ dBm}$

IMPROVED DYNAMIC RANGE

### THROUGH HOLE (TO -CAN)



FREQUENCY RANGE (MHz)		CONVERSION LOSS (dB)		LO-RF ISOLATION (dB)			LO-IF ISOLATION (dB)			PACKAGE	PIN OUT	MODEL
RF/LO	IF	XMB TYP/MAX	FULL BAND TYP/MAX	LB TYP/MIN	MB TYP/MIN	UB TYP/MIN	LB TYP/MIN	MB TYP/MIN	UB TYP/MIN			
0.5-200	0.5-200	5.5/6.5	6.5/7	45/30	50/45	45/40	35/25	40/35	35/30	123	1	CLP-506
10-2500	10-1000	7/8	7.5/8.5	55/35	45/30	35/25	35/20	30/20	27/20	104	1	CLP-505
10-2500	10-1000	7/8	7.5/8.5	55/35	45/30	35/25	35/20	30/20	27/20	122	2	CLP-605
500-3700	500-1000	--/--	9.5/11.5	45/25	45/25	45/25	40/20	40/20	40/20	122	2	CLP-610

### FLAT PACK



FREQUENCY RANGE (MHz)		CONVERSION LOSS (dB)		LO-RF ISOLATION (dB)			LO-IF ISOLATION (dB)			PACKAGE	PIN OUT	MODEL
RF/LO	IF	XMB TYP/MAX	FULL BAND TYP/MAX	LB TYP/MIN	MB TYP/MIN	UB TYP/MIN	LB TYP/MIN	MB TYP/MIN	UB TYP/MIN			
10 - 2500	10 - 1000	7/8	7.5/8.5	55/35	45/30	35/25	35/20	30/20	27/20	101	3	CLF-105
500 - 3700	500 - 1000	--/--	9.5/11.5	45/25	45/25	45/25	40/20	40/20	40/20	101	3	CLF-110

### COAXIAL



FREQUENCY RANGE (MHz)		CONVERSION LOSS (dB)		LO-RF ISOLATION (dB)			LO-IF ISOLATION (dB)			OUTLINE DRAWING	PIN OUT	MODEL
RF/LO	IF	XMB TYP/MAX	FULL BAND TYP/MAX	LB TYP/MIN	MB TYP/MIN	UB TYP/MIN	LB TYP/MIN	MB TYP/MIN	UB TYP/MIN			
0.05 - 200	0.05 - 200	5.5/6.5	6.5/7	45/30	50/45	45/40	35/25	40/35	35/30	110	4	CLK-706*
10 - 2000	10 - 1000	6/8	6.5/8.5	32/25	35/25	35/20	33/20	30/20	25/20	110	4	CLK-7A6S ■
10 - 2500	10 - 1000	7/8	7.5/8.5	55/35	45/30	35/20	35/20	30/20	27/20	110	4	CLK-705S
10 - 3000	10 - 800	6.3/8	6.5/8.5	35/25	35/25	35/25	30/20	30/20	30/20	110	4	CLK-7B8S
500 - 3700	500 - 1000	--/--	9.5/11.5	45/25	45/25	45/25	40/20	40/20	40/20	110	4	CLK-710S

**NOTES:**

- 1dB Compression Point = +5 dBm (Typ)
- IP3 (Input) = +18 dBm (Typ)
- As IF frequency decrease below LF towards DC, conversion loss increases up to 8 dB higher than maximum
- Maximum Input Power without damage = 250 mW ave. cw

\* Connector style: "B" = BNC, "T" = TNC, "N" = Type N, "S" = SMA

■ Double Balanced Model (IP3 & 1dB comp. pt. 3 dB lower than specified.)

**PIN-OUT TABLE**

	RF	LO	IF	GND	CASE GND	NO CONN.
#1	2	5	11	All Others	All Others	--
#2	1	3	2	4	4	--
#3	1	4	5	All Others	All Others	--
#4	1	3	2	--	--	--

XMB= 2LF to HF/2  
 FULL BAND = LF to HF  
 LB= LF to 10LF  
 MB = 10LF to HF/2  
 UB= HF/2 to HF

GND = Ground externally

For pin location and package outline drawings, see back pages.

