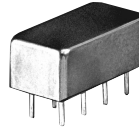


# VOLTAGE CONTROLLED OSCILLATORS

Plug-In

LINEAR TUNING 15 to 2120 MHz



POS

MODEL NO.	FREQ. MHz		POWER OUTPUT dBm	TUNE VOLTAGE V		PHASE NOISE dBc/ Hz SSB @ offset frequencies: Typ.				PULLING MHz pk-pk @12 dB	PUSHING MHz/V	TUNING SENSITIVITY MHz/V	HARMONICS dBc		3 dB MOD. BAND-WIDTH kHz	POWER SUPPLY		CAPD DATA	Case Style	CONN. I/O	Price \$
	Min.	Max.		Min.	Max.	1 kHz	10 kHz	100 kHz	1 MHz				Typ.	Max.		Voltage V	CURRENT mA				
POS-25	15-25		+7	1	11	-86	-105	-125	-145	0.06	0.04	1 - 4	-26	-15	60	12	20	FOR DATA	A06	hx	16.95
POS-50	25-50		+8.5	1	16	-88	-110	-130	-150	0.06	0.04	2.0 - 2.6	-19	-12	100	12	20		A06	hx	11.95
POS-75	37.5-75		+8	1	16	-87	-110	-130	-150	0.15	0.11	3.1 - 3.8	-27	-16	100	12	20		A06	hx	11.95
POS-100	50-100		+8.3	1	16	-83	-107	-130	-150	0.6	0.2	4.2 - 4.8	-23	-18	100	12	20		A06	hx	11.95
POS-150	75-150		+9.5	1	16	-80	-103	-127	-147	0.8	0.3	5.8 - 6.7	-23	-17	100	12	20	SEE YONI	A06	hx	11.95
POS-200	100-200		+10	1	16	-80	-102	-122	-142	1.0	0.2	7.1 - 8.6	-24	-20	100	12	20		A06	hx	11.95
POS-300	150-280		+10	1	16	-78	-100	-120	-140	1.8	0.3	9.5 - 13	-30	-20	100	12	20		A06	hx	13.95
POS-400	200-380		+9.5	1	16	-76	-98	-120	-140	1.8	0.3	13.7 - 16.9	-28	-20	100	12	20		A06	hx	13.95
NEW POS-500W	250-500		+10	1	16	-79	-100	-120	-140	1.5	0.2	17-23	-25	-18	100	12	25	ON OUR WEBSITE	A06	hx	18.95
POS-535	300-525		+8.8	1	16	-70	-93	-116	-139	2.0	0.4	10.5 - 24	-26	-20	100	12	20		A06	hx	13.95
POS-765	485-765		+9.5	1	16	-61	-85	-108	-129	5.0	0.4	18 - 27	-21	-17	100	12	22		A06	hx	14.95
NEW POS-800W	400-800		+8.0	.5	18	-71	-93	-115	-137	3.0	0.5	18 - 50	-26	-18	100	10	25		A06	hx	16.95
POS-900W	500-900		+7	1	20	-75	-95	-115	-135	2.0	0.3	16 - 40	-26	-20	100	12	25	ON OUR WEBSITE	A06	hx	16.95
POS-1000W	500-1000		+7	1	16	-73	-93	-113	-133	6.0	1.5	30 - 42	-26	-20	100	12	20		A06	hx	19.95
POS-1025	685-1025		+9	1	16	-65	-84	-104	-124	5.0	0.6	21 - 36	-23	-18	100	12	22		A06	hx	16.95
POS-1060	750-1060		+12	1	20	-65	-90	-112	-132	50	3.0	18 - 32	-11	—	1000	8	30		A06	hx	14.95
POS-1400	975-1400		+13	1	20	-65	-95	-115	-135	36	1.5	21-43	-11	—	1000	8	30	ON OUR WEBSITE	A06	hx	14.95
POS-2000	1370-2000		+10	1	20	-70	-95	-115	-135	28	1.5	30-50	-11	—	1000	8	30		A06	hx	14.95
NEW POS-2120W	1060-2120		+8	.5	20	-70	-97	-117	-137	27	2.5	35-120	-11	—	1000	12	28		A06	hx	21.95

## features

- Octave bandwidth range (typ.)
- Linear tuning
- Low phase noise
- Excellent harmonic suppression
- Output suitable for LO drive to mixers
- Low power consumption, typically 190 mW (most models)
- Usable with +15V supply for higher power output, typically 2 dB
- Useful in digital cordless phones, cellular up-and-down converters, CATV distribution and set top converters, wideband frequency synthesizers, test instruments, signal generators and agile communications systems

## NOTES:

- General Quality Control Procedures, Environmental specifications, Hi-Rel, and MIL description are given in General Information (Section 0).
- Connector types and case mounted options, case finishes are given in section 0, see "Case Styles & Outline Drawings".
- Prices and Specifications subject to change without notice.

- Absolute Maximum Supply Voltage ( $V_{cc}$ ) & Tuning Voltage ( $V_{tune}$ ):

Model	( $V_{cc}$ )	( $V_{tune}$ )	Model	( $V_{cc}$ )	( $V_{tune}$ )
POS-25	+15V	+12V	POS-535	+16V	+18V
POS-50	+16V	+17V	POS-765	+16V	+18V
POS-75	+16V	+18V	POS-800W	+12V	+20V
POS-100	+16V	+18V	POS-900W	+15V	+25V
POS-200	+16V	+18V	POS-1000W	+15V	+20V
POS-150	+16V	+18V	POS-1025	+16V	+18V
POS-200	+16V	+18V	POS-1060	+10V	+22V
POS-300	+16V	+18V	POS-1400	+10V	+22V
POS-400	+16V	+18V	POS-2000	+10V	+22V
POS-500W	+15V	+20V	POS-2120W	+15V	+25V

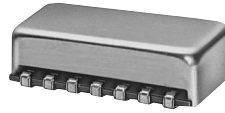
- Operating Temperature: -55°C to +85°C

## designers kits available

KIT No.	No. of Units in KIT	Description	Price \$ per KIT
K-POS1	10	1 of each: POS-50, 75, 100, 150, 200, 300, 400, 535, 765, 1025	124.95
K-POS2	7	1 of each: POS-50, 100, 200, 400, 535, 765, 1025	79.95
K-POS3	6	2 of each: POS-1060, 1400, 2000	79.95
K-JTOS1	10	1 of each: JTOS-50, 75, 100, 150, 200, 300, 400, 535, 765, 1025	149.95
K-JTOS2	7	1 of each: JTOS-50, 100, 200, 400, 535, 765, 1025	99.95
K-JTOS3	6	2 of each: JTOS-1300, 1650, 1910	114.95

# Surface Mount

## 12.5 to 3000 MHz



JTOS



ROS

MODEL NO.	FREQ. MHz		POWER OUTPUT dBm	TUNE VOLTAGE V		PHASE NOISE dBc/ Hz SSB @ offset frequencies: Typ.				PULLING MHz pk-pk @12 dB	PUSHING MHz/V	TUNING SENSITIVITY MHz/V	HARMONICS dBc		3 dB MOD. BAND-WIDTH kHz	POWER SUPPLY		CAPD DATA	Case Style	CONNECTION	Price \$
	Min.	Max.		Min.	Max.	1 kHz	10 kHz	100 kHz	1 MHz				Typ.	Max.		Voltage V	Current mA				
JTOS-25	12.5	25	+8.0	1	11	-95	-115	-135	-155	0.03	0.02	1.0-4.0	-26	-13	130	12	20		BK377	jc	18.95
JTOS-50	25	47	+8.5	1	15	-88	-108	-127	-147	0.06	0.04	2.0-2.6	-19	-12	50	12	20		BK377	jc	13.95
JTOS-75	37.5	75	+8.0	1	16	-89	-110	-130	-140	0.15	0.11	2.8-4.0	-27	-20	125	12	20		BK377	jc	13.95
JTOS-100	50	100	+8.3	1	16	-83	-108	-128	-140	0.6	0.2	3.7-4.8	-35	-20	100	12	18		BK377	jc	13.95
JTOS-150	75	150	+9.5	1	16	-82	-106	-127	-147	0.8	0.3	5.8-6.7	-23	-17	112	12	20		BK377	jc	13.95
JTOS-200	100	200	+10.0	1	16	-84	-105	-124	-145	1.0	0.2	6-10	-25	-20	110	12	20		BK377	jc	13.95
JTOS-300	150	280	+9.0	1	16	-82	-102	-122	-142	1.0	0.2	9-14	-28	-20	120	12	20		BK377	jc	15.95
JTOS-400	200	380	+9.0	1	16	-82	-102	-122	-142	1.4	0.4	10.5-17.1	-25	-20	130	12	20		BK377	jc	15.95
JTOS-535	300	525	+9.5	1	16	-75	-97	-117	-137	2.0	0.5	10-24	-28	-20	115	12	20		BK377	jc	15.95
JTOS-765	485	765	+8.0	1	16	-75	-98	-118	-138	2.0	0.5	20-30	-30	-20	100	12	20		BK377	jc	16.95
JTOS-1025	685	1025	+8.6	1	16	-70	-94	-114	-134	5.0	0.6	21-36	-28	-20	100	12	22		BK377	jc	18.95
JTOS-1300	900	1300	+7.0	1	20	-70	-95	-115	-135	12	1.0	25-45	-28	-17	1000	12	30		BK377	jc	18.95
JTOS-1550	1150	1550	+7.0	0.5	20	-73	-101	-121	-141	14	0.7	22-32	-20	-10	2700	12	30		BK377	jc	19.95
JTOS-1650	1200	1650	+7.0	1	13	-70	-95	-115	-135	15	1.5	50-90	-20	-14	1000	12	30		BK377	jc	19.95
JTOS-1750	1350	1750	+7.0	0.5	20	-73	-101	-121	-141	7	0.5	26-35	-16	-10	2700	12	30		BK377	jc	19.95
JTOS-1000W	500	1000	+7.0	1	18	-73	-94	-114	-134	5.0	1.0	30-40	-26	-20	100	12	25		BK377	jc	21.95
JTOS-1910	1625	1910	+10.0	1	12	-65	-92	-112	-132	40	4.0	30-60	-20	-15	1000	12	20		BK377	jc	19.95
JTOS-1950	1550	1950	+7	0.5	20	-75	-103	-125	-145	7	0.6	23-32	-14	-10	8000	12	30		BK377	jc	19.95
JTOS-2000	1370	2000	+12.0	1	22	-70	-95	-115	-135	40	1.5	30-50	-11	-8	1000	8	30		BK377	jc	19.95
JTOS-3000	2300	3000	+10.0	0.5	12	-60	-90	-110	-130	50	5.0	50-150	-22	-12	20000	5	25		BK377	jc	20.95
NEW ROS-100	50	100	+8.3	0.5	17	-75	-105	-125	-145	0.6	0.3	3.0-5.0	-30	-20	100	12	20		CK605	kg	12.95
NEW ROS-150	75	150	+9.5	1	18	-80	-103	-127	-144	0.8	0.3	4.0-6.8	-23	-16	100	12	20		CK605	kg	12.95
NEW ROS-200	100	200	+10.0	1	17	-80	-105	-125	-145	0.6	0.3	6-11	-30	-20	100	12	20		CK605	kg	12.95
NEW ROS-300	150	280	+9.0	1	16	-80	-102	-122	-142	0.5	0.3	7-17	-28	-18	100	12	20		CK605	kg	14.95
NEW ROS-400	200	380	+9.5	0.5	17	-80	-100	-120	-140	0.2	0.3	9-22	-24	-18	100	12	20		CK605	kg	14.95
NEW ROS-535	300	525	+6.0	1	17	-75	-98	-118	-138	0.5	0.4	9-27	-20	-15	100	12	20		CK605	kg	14.95
NEW ROS-765	485	765	+6.0	1	16	-74	-95	-115	-135	2	0.5	10-40	-27	-14	100	12	22		CK605	kg	15.95
NEW ROS-1410	850	1410	+7.0	0.5	11	-73	-99	-119	-138	15	1	50-80	-8	—	1000	12	25		CK605	kg	19.95
NEW ROS-1720	1550	1720	+7.0	0.5	12	-73	101	-121	-141	11	1.3	28-34	-17	-10	18000	12	25		CK605	kg	19.95

### NOTES:

- Environmental specifications and re-flow soldering information available in General Information Section.
- Units are non-hermetic unless otherwise noted. For details on case dimensions & finishes see "Case Styles & Outline Drawings".
- Prices and Specifications subject to change without notice.
- Absolute Maximum Supply Voltage ( $V_{cc}$ ) & Tuning Voltage ( $V_{tune}$ ):

Model	( $V_{cc}$ )	( $V_{tune}$ )	Model	( $V_{cc}$ )	( $V_{tune}$ )
JTOS-25	+15V	+12V	JTOS-3000	+7V	+15V
JTOS-50	+16V	+17V	JTOS-1550	+13V	+22V
JTOS-75 thru JTOS-765	+16V	+18V	JTOS-1750	+13V	+22V
JTOS-1000W	+15V	+25V	JTOS-1950	+13V	+22V
JTOS-1025	+16V	+18V	ROS-1410	+13V	+13V
JTOS-1300	+15V	+22V	ROS-1720	+13V	+14V
JTOS-1650	+15V	+15V	Other ROS models	+13V	+18V
JTOS-1910	+15V	+15V			
JTOS-2000	+10V	+25V			

- Operating Temperature: -55°C to +85°C.

pin connections see case style outline drawings

PORT	jc	hx	kg
RF OUT	13	2	10
V-CC	2	1	14
V-TUNE	5	8	2
GND EXT	1,3,4,6,7,8,9,10,11,12,14	3,4,5,6,7	1,3,4,5,6,7,8,9,11,12,13,15,16
DEMO BOARD	TB-04	—	TB-10



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