

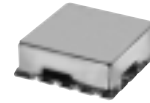
# VOLTAGE CONTROLLED OSCILLATORS

Surface Mount

LINEAR TUNING 12.5 to 3000 MHz



JTOS



ROS

MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	TUNE VOLT- AGE (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. BANDWIDTH (kHz)	POWER SUPPLY		CASE STYLE	CON- NECTION	PRICE \$
	Min.	Max.		Typ.	Min.	Max.	1 kHz	10 kHz	100 kHz			1 MHz	Typ.	Typ.	Typ.		Typ.	Max.			
	Note B																				Qty. (5-49)
NEW	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-1910	1625-1910	+7	1	12	-69	-97	-117	-137	10	1.0	30-60	-20	-15	2500	12	20	BK377	jc	19.95	
JTOS-1950	1550-1950	+7	0.5	20	-75	-103	-125	-144	7	0.6	23-32	-14	-10	8000	12	30	BK377	jc	19.95		
JTOS-2700V	2050-2700	+8.0	0.5	18	-72	-94	-114	-134	5.0	1.0	46-56	-25	-10	8000	5	20	BK377	jc	21.95		
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		
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		
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		
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		
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		
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		
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		
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-1000V	900-1000	0	0.5	12	-74	-102	-122	-140	1.0	0.4	12-16	-30	-20	8000	5	25	CK605	kg	15.95		
NEW ROS-1100V	1000-1100	0	0.5	12	-80	-103	-123	-142	1.5	1.5	12-16	-26	-20	8000	5	25	CK605	kg	15.95		
NEW ROS-1121V	1060-1121	2.5	1	11	-88	-111	-131	-149	0.7	0.7	8-13	-11	—	10000	5	30	CK605	kg	15.95		
ROS-1410	850-1410	+7.0	0.5	11	-73	-99	-119	-138	15	1.0	50-80	-8	—	1000	12	25	CK605	kg	19.95		
NEW ROS-1500	1000-1500	+8.0	0.5	20	-79	-104	-124	-144	10	1.2	25-40	-13	—	100000	10	26	CK605	kg	16.95		
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		
NEW ROS-1900	1450-1900	+7.0	0.5	20	-80	-106	-126	-146	7	0.7	22-34	-15	-7	100000	10	25	CK605	kg	17.95		
NEW ROS-1900V	1450-1900	+8.0	0.5	20	-78	-104	-124	-144	7	0.7	22-34	-18	-10	100000	5	28	CK605	kg	17.95		
NEW ROS-2650	2165-2650	+5.0	0.5	19	-75	-101	-121	-141	5	1.0	27-36	-12	—	6000	12	25	CK605	kg	18.95		
NEW ROS-3000V	2400-3000	+9.0	0.5	22	-70	-96	-116	-136	30	1.5	20-60	-18	—	20000	5	40	CK605	kg	24.95		

## NOTES:

- ◆ Aqueous washable
- A. Environmental specifications and re-flow soldering information available in General Information Section.
- B. Units are non-hermetic unless otherwise noted. For details on case dimensions & finishes see "Case Styles & Outline Drawings".
- C. Prices and Specifications subject to change without notice.
- 1. Operating Temperature: -55°C to +85°C
- 2. Absolute Maximum Supply Voltage ( $V_{cc}$ ) & Tuning Voltage ( $V_{tune}$ ):

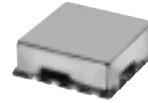
see suggested PCB layouts: PL-005 for JTOS models  
PL-012 for ROS models

Model	( $V_{cc}$ )	( $V_{tune}$ )	Model	( $V_{cc}$ )	( $V_{tune}$ )	Model	( $V_{cc}$ )	( $V_{tune}$ )
JTOS-25	+15V	+12V	JTOS-1950	+13V	+22V	ROS-1700W	+15V	+30V
JTOS-50	+16V	+17V	JTOS-2000	+10V	+25V	ROS-1720	+13V	+14V
JTOS-75 thru JTOS-765	+16V	+18V	JTOS-2700V	+6V	+20V	ROS-1900	+11V	+22V
JTOS-850VW	+6V	+20V	JTOS-3000	+7V	+15V	ROS-1900V	+6V	+22V
JTOS-1000W	+15V	+25V	ROS-100 thru ROS-765	+13V	+18V	ROS-2000	+13V	+22V
JTOS-1025	+16V	+18V	ROS-1000V	+6V	+15V	ROS-2150VW	+6V	+28V
JTOS-1300	+15V	+22V	ROS-1100V	+6V	+15V	ROS-2160W	+12V	+22V
JTOS-1550	+13V	+22V	ROS-1121V	+6V	+12V	ROS-2500	+15V	+16V
JTOS-1650	+15V	+15V	ROS-1200W	+15V	+25V	ROS-2650	+13V	+20V
JTOS-1750	+13V	+22V	ROS-1410	+13V	+13V	ROS-3000V	+6V	+22V
JTOS-1910	+15V	+15V	ROS-1500	+11V	+22V			

## WIDE BAND 400 to 2500 MHz



JTOS



ROS

MODEL NO.	FREQ. (MHz)		POWER OUTPUT (dBm)	TUNE VOLT- AGE (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. BANDWIDTH (kHz)	POWER SUPPLY		CASE STYLE	CON- NECTION	PRICE \$
	Min.	Max.		Min.	Max.	1 kHz	10 kHz	100 kHz	1 MHz				Typ.	Max.		Voltage (V) Nom.	Current (mA) Max.			
NEW JTOS-850VW	400-850		+6.0	0.5	18	-74	-96	-116	-136	6.0	1.5	15-80	-20	—	185	5	20	BK377	jc	18.95
JTOS-1000W	500-1000		+7.0	1.0	18	-73	-94	-114	-134	5.0	1.0	30-40	-26	-20	100	12	25	BK377	jc	21.95
JTOS-2000	1370-2000		+12.0	1	22	-70	-95	-115	-135	4.0	1.5	30-50	-11	-8	1000	8	30	BK377	jc	19.95
NEW ROS-1200W	612-1200		+10.0	0.5	18	-71	-97	-119	-139	9.0	0.45	26-68	-18	-10	20000	12	40	CK605	kg	24.95
NEW ROS-1700W	770-1700		+8.0	1.0	24	-73	-100	-121	-140	9.0	0.4	26-60	-25	-13	11000	12	40	CK605	kg	24.95
NEW ROS-2000	1350-2000		+7.0	0.5	20	-75	-100	-120	-140	9	1.3	30-50	-11	—	2000	12	25	CK605	kg	21.95
NEW ROS-2150VW	970-2150		+4.0	0.5	25	-70	-96	-118	-138	7.0	2.5	30-70	-15	—	6000	5	25	CK605	kg	29.95
NEW ROS-2160W	1160-2160		+5.0	0.5	20	-70	-97	-117	-137	10.0	1.5	30-80	-11	—	12000	10	30	CK605	kg	24.95
NEW ROS-2500	1600-2500		+6.5	0.5	14	-66	-90	-113	-133	18	5.0	30-180	-14	-8	6000	12	25	CK605	kg	21.95

### features

- Linear tuning
- Low phase noise
- Excellent harmonic suppression
- Output suitable for LO drive to mixers
- Low power consumption, typically 190 mW (most models)
- 12-V parts are usable with +15V supply for higher power output, typically 2 dB

### applications

- digital cordless phones
- cellular up-and-down converters
- catv distribution set top converters
- wideband frequency synthesizers
- test instruments
- signal generators
- agile communications systems

### pin connections see case style outline drawings

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

### designers kits available

KIT No.	No. of Units in KIT	Description	Price \$ per KIT
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

### NSN GUIDE

MCL NO.	NSN
JTOS-200	5955-01-483-0505
JTOS-2000	5955-01-478-7347
ROS-1410	5963-01-514-0616



The Design Engineers Search Engine

Provides Actual Data Instantly  
At: <http://www.minicircuits.com>

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