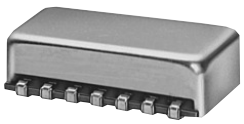
VOLTAGE CONTROLLED OSCILLATORS *Surface Mount*

LINEAR TUNING *12.5 to 3000 MHz*



JTOS

ROS

MODEL◆ NO.	FREQ. (MHz) Min.	Max.	POWER OUTPUT (dBm) Typ.	TUNE VOLTAGE (V) Min.	Max.	PHASE NOISE (dBc/Hz) SSB@ offset frequencies: Typ. 1 kHz	10 kHz	100 kHz	1 MHz	PULLING (MHz) pk-pk @12 dBr Typ.	PUSHING (MHz/V) Typ.	TUNING SENSITIVITY (MHz/V) Typ.	HARMONICS (dBc) Typ.	Max.	3dB MOD. BANDWIDTH (kHz) Typ.	POWER SUPPLY Voltage (V) Nom.	Current (mA) Max.	CASE STYLE Note B	CONNECTION	PRICE $ ea. Qty. (5-49)
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
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
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
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
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
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
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
ROS-2650	2165	2650	+5.0	0.5	19	-75	-101	-121	-141	5	1.0	27-36	-12	—	200000	12	25	CK605	kg	18.95
ROS-2750	2350	2750	+5.7	0.5	14.5	-78	-105	-127	-146	2.0	0.3	32-42	-23	-12	120000	6	35	CK1113	kg	17.95
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

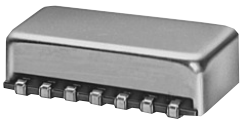
2. Absolute Maximum Supply Voltage (V_{cc}) & Tuning Voltage (V_{tune}):

Model	(V_{cc})	(V_{tune})	Model	(V_{cc})	(V_{tune})	Model	(V_{cc})	(V_{tune})
JTOS-25	+15V	+12V	JTOS-1950	+13V	+22V	ROS-1600W	+12V	+24V
JTOS-50	+16V	+17V	JTOS-2000	+10V	+25V	ROS-1700W	+15V	+30V
JTOS-75 thru JTOS-765	+16V	+18V	JTOS-2700V	+6V	+20V	ROS-1720	+13V	+14V
JTOS-850VW	+6V	+20V	JTOS-3000	+7V	+15V	ROS-1900	+11V	+22V
JTOS-1000W	+15V	+25V	ROS-100 thru ROS-765	+13V	+18V	ROS-1900V	+6V	+22V
JTOS-1025	+16V	+18V	ROS-1000V	+6V	+15V	ROS-2000	+13V	+22V
JTOS-1300	+15V	+22V	ROS-1100V	+6V	+15V	ROS-2150VW	+6V	+28V
JTOS-1550	+13V	+22V	ROS-1121V	+6V	+12V	ROS-2160W	+12V	+22V
JTOS-1650	+15V	+15V	ROS-1200W	+15V	+25V	ROS-2500	+15V	+16V
JTOS-1750	+13V	+22V	ROS-1410	+13V	+13V	ROS-2650	+13V	+20V
JTOS-1910	+15V	+15V	ROS-1500	+11V	+22V	ROS-2750	+7V	+16V
						ROS-3000V	+6V	+22V

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

051109

WIDE BAND 400 to 2500 MHz



JTOS

ROS

MODEL◆ NO.	FREQ. (MHz) Min.	Max.	POWER OUTPUT (dBm) Typ.	TUNE VOLTAGE (V) Min.	Max.	PHASE NOISE (dBc/Hz) SSB@ offset frequencies: Typ. 1 kHz	10 kHz	100 kHz	1 MHz	PULLING (MHz) pk-pk @12 dBr Typ.	PUSHING (MHz/V) Typ.	TUNING SENSITIVITY (MHz/V) Typ.	HARMONICS (dBc) Typ.	Max.	3dB MOD. BANDWIDTH (kHz) Typ.	POWER SUPPLY Voltage (V) Nom.	Current (mA) Max.	CASE STYLE Note B	CONNECTION	PRICE $ ea. Qty. (5-49)
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	40	1.5	30-50	-11	-8	1000	8	30	BK377	jc	19.95
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
ROS-1600W	800-1600		+9.0	0.5	24	-72	-99	-122	-143	10.0	0.3	35-58	-22	-15	90000	11.5	35	CK605	kg	19.95
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
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
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
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
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
- 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

050321

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Available Tape & Reel

PC-Name: PC-TEAM1-004
Benutzername: skarzell

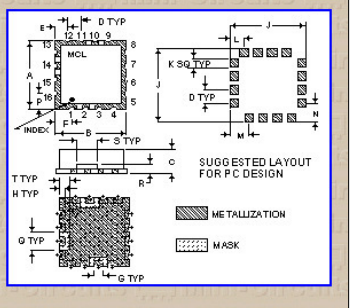
CK605 (inch / mm)

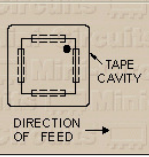
A	B	C	D	E	F	G	H	J	
.500 12.700	.500 12.700	.180 4.572	.100 2.540	.080 2.032	.115 2.921	.060 1.524	.040 1.016	.540 13.716	
K	**L**	**M**	**N**	**P**	**Q**	**R**	**S**	**T**	**wt. grams.**
.060 1.524	.100 2.540	.135 3.429	.135 3.429	.115 2.921	.140 3.556	.070 1.778	.150 3.810	.070 1.778	1.000

Tolerance: .x ± .1 .xx ± .03 .xxx ± .015 inch.

Notes:

- Material and Finish:
  - Case Material: Copper-Nickel or Nickel-Silver Alloy.
    Base: Printed wire Laminate.
    Termination Finish: For RoHS Models: - 3 Microinches thick Gold over Nickel Plate.
    For Non-RoHS Models: - Tin/Lead Plate or 3 Microinches thick Gold over Nickel Plate.
- Packaging:





Packaging information:

Tape Width (mm): 24.0
Reel Size (inches): 13.0
Device Cavity Pitch (mm): 16.0
Devices Per Reel: 500