

# VOLTAGE CONTROLLED OSCILLATORS

## 5V TUNING FOR PLL IC's 24 to 2600 MHz

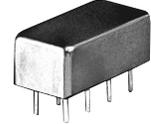
SURFACE MOUNT



JTOS



ROS



POS

MODEL NO.	FREQ. MHz		POWER OUTPUT dBm	PHASE NOISE dBc/ Hz SSB at offset frequencies: Typ.				PULLING MHz pk-pk @12 dB <sub>r</sub>	PUSHING MHz/V	TUNING SENSITIVITY MHz/V	HARMONICS dBc		3 dB MODULATION BANDWIDTH KHz	POWER SUPPLY		CAPD DATA	Case Style	CONN. STYLE	Price \$
	Min.	Max.		Typ.	1 kHz	10 kHz	100 kHz				1 MHz	Typ.		Typ.	Typ.				
JTOS-50P	24-29		+9.5	-88	-108	-127	-147	0.06	0.04	2-2.5	-14	-12	50	12	20		BK377	jc	14.95
JTOS-75P	35-43		+9	-89	-110	-130	-140	0.15	0.11	2.5-4	-25	-20	125	12	20		BK377	jc	14.95
JTOS-100P	48-59		+9	-83	-108	-128	-140	0.6	0.2	3.5-4	-30	-20	100	12	18		BK377	jc	14.95
JTOS-150P	72-91		+9.5	-82	-106	-127	-147	0.8	0.3	6-9	-30	-17	112	12	20		BK377	jc	14.95
JTOS-200P	95-120		+8.8	-84	-105	-124	-145	1.0	0.2	7-10	-30	-20	110	12	20		BK377	jc	14.95
JTOS-300P	148-174		+10	-82	-102	-122	-142	1.0	0.2	10-14	-27	-20	120	12	20		BK377	jc	16.95
JTOS-400P	194-220		+11	-82	-102	-122	-142	1.4	0.4	13-18	-25	-20	130	12	20		BK377	jc	16.95
JTOS-535P	278-325		+9.5	-75	-97	-117	-137	2.0	0.5	17-22	-30	-20	115	12	20		BK377	jc	16.95
JTOS-765P	486-510		+9	-75	-98	-118	-138	2.0	0.5	20-30	-30	-20	100	12	20		BK377	jc	17.95
JTOS-1025P	680-755		+9	-70	-94	-114	-134	5.0	0.6	30-40	-27	-20	100	12	22		BK377	jc	19.95
JTOS-2200P	2000-2200		+6	-65	-92	-112	-132	15	5.0	110-170	-15	-12	10000	5	25		BK377	jc	21.95
JTOS-3000P	2300-2600		+11	-65	-92	-112	-132	50	5.0	120-160	-22	-12	20000	5	25		BK377	jc	21.95
NEW ROS-285PV	245-285		+3	-80	-100	-120	-140	2.0	0.2	10-20	-20	-10	100	5	20		CK605	kg	17.95
NEW ROS-900PV	810-900		+1	-80	-102	-122	-142	3.0	2.0	26-30	-25	-16	1000	4.5	12		CK605	kg	19.95
NEW ROS-960PV	890-960		0	-80	-102	-122	-142	2.0	0.2	25-28	-27	-18	1000	5	12		CK605	kg	19.95
NEW ROS-1000PV	900-1000		+6	-80	-104	-124	-144	2.0	0.7	27-38	-33	-20	1000	5	22		CK605	kg	19.95
NEW ROS-1600PV	1520-1600		+7	-75	-100	-120	-140	10	3.0	25-38	-26	-16	1000	5	25		CK605	kg	18.95
POS-50P	24-29		+10	-92	-113	-134	-151	0.06	0.04	2-2.5	-18	-12	50	12	20		A06	hx	12.95
POS-75P	35-43		+9	-91	-113	-135	-151	0.15	0.11	2.5-4	-25	-20	100	12	20		A06	hx	12.95
POS-100P	48-59		+9	-92	-112	-134	-151	0.6	0.2	3.5-5	-30	-18	100	12	20		A06	hx	12.95
POS-150P	72-91		+10	-84	-104	-126	-147	0.8	0.3	6-9	-25	-17	100	12	20		A06	hx	12.95
POS-200P	95-120		+10	-77	-102	-123	-146	1.0	0.2	7-10	-30	-20	100	12	20		A06	hx	12.95
POS-300P	148-174		+10	-83	-105	-125	-145	1.8	0.3	10-14	-27	-20	100	12	20		A06	hx	14.95
POS-400P	194-220		+10.5	-82	-103	-124	-142	1.8	0.3	13-18	-25	-20	100	12	20		A06	hx	14.95
POS-535P	278-325		+10	-66	-95	-120	-138	2.0	0.4	17-22	-30	-20	100	12	20		A06	hx	14.95
POS-765P	486-510		+9.5	-70	-92	-116	-135	5.0	0.4	20-30	-26	-20	100	12	22		A06	hx	15.95
POS-1025P	680-755		+8.5	-74	-96	-116	-135	5.0	0.6	30-40	-24	-18	100	12	22		A06	hx	17.95

### TUNING VOLTAGE TO COVER FREQUENCY RANGE 0.5V TO 5V

NOTES:

- Non-hermetic
- A. General Quality Control Procedures, Environmental specifications, Hi-Rel, and MIL description are given in General Information (Section 0).
- B. Connector types and case mounted options, case finishes are given in section 0, see "Case Styles & Outline Drawings".
- C. Prices and Specifications subject to change without notice.
- 1. Absolute Maximum Supply Voltage ( $V_{cc}$ ) & Tuning Voltage ( $V_{tune}$ ):

Model	( $V_{cc}$ )	( $V_{tune}$ )	Model	( $V_{cc}$ )	( $V_{tune}$ )
JCOS models	+15V	+24V	ROS-285PV	+8V	+10V
JTOS-25P thru JTOS-1025P	+16V	+7V	ROS-900PV	+6V	+6V
JTOS-2200P	+7V	+7V	ROS-960PV	+6V	+6V
JTOS-3000P	+7V	+7V	ROS-1000PV	+6V	+6V
POS Models	+16V	+7V	ROS-1600PV	+6V	+6V
POSA Models	+15V	+24V	ZOS models	+16V	+18V
except POSA-960	+16V	+16V	except ZOS-50	+16V	+17V

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

Surface Mount<sup>□</sup>, Plug-In & Coaxial

**Low Noise 118 to 1114 MHz**



JCOS



POSA

MODEL NO.	FREQ. MHz		POWER OUTPUT dBm		TUNING VOLTAGE V		PHASE NOISE dBc/ Hz SSB at 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		CAPD DATA	Case Style	CONN. CONNECTOR	Price \$
	Min.	Max.	Typ.	Min.	Max.	100 Hz	1 kHz	10 kHz	100 kHz	1 MHz	Typ.				Typ.	Typ.		Typ.	Max.				
JCOS-820WLN	780	860	+9	0	20	-60	-90	-112	-132	-150	4.5	0.3	8	-13	-8	2000	9	25	(see YONI on our website)	BG419	jd	49.95	
JCOS-820BLN	807	832	+3	1	14	-57	-88	-112	-132	-151	0.4	0.4	6	-24	-20	2000	10	25		BG419	jd	49.95	
JCOS-1100LN	1079	1114	+8.5	0	20	-60	-88	-110	-130	-150	7.5	0.5	4.5	-15	-10	2000	8	25		BG419	jd	49.95	
POSA-138	118	138	+5	1	16	-72	-100	-125	-145	-163	0.07	0.03	2.3	-40	-30	2000	12	25	(see YONI on our website)	C07	jr	46.95	
POSA-158	138	158	+5	1	16	-72	-100	-125	-145	-163	0.07	0.03	2.4	-40	-25	2000	12	25		C07	jr	46.95	
NEW POSA-960	800	960	+16	1	15	—	-84	-112	-130	-150	2.0	0.3	17-22	-30	-16	2000	15	50		C07	mj	49.95	

**DUAL OUTPUT 25 to 1025 MHz**



ZOS

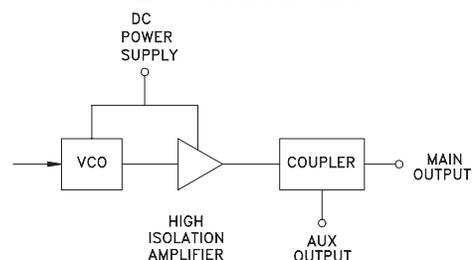
MODEL NO.	FREQ. MHz		POWER OUTPUT dBm		TUNING VOLTAGE V		PHASE NOISE dBc/ Hz SSB at offset frequencies: Typ.			PULLING MHz pk-pk (Open/Short)	PUSHING MHz/V	TUNING SENSITIVITY MHz/V	HARMONICS dBc		3 dB MOD. BANDWIDTH KHz	POWER SUPPLY		CAPD DATA	Case Style	Price \$
	Min.	Max.	Main.	Aux.	Min.	Max.	10 kHz	100 kHz	1MHz				Typ.	Typ.		Typ.	Typ.			
ZOS-50	25	50	+9	-12	1	16	-107	-126	-141	0.012	0.08	2.5	-22	-12	100	12	140	(see YONI on our website)	BR386	119.95
ZOS-75	37.5	75	+9	-12	1	16	-110	-128	-142	0.016	0.15	3.5	-26	-20	100	12	140		BR386	119.95
ZOS-100	50	100	+9	-12	1	16	-111	-131	-143	0.026	0.25	4.5	-29	-20	100	12	140		BR386	119.95
ZOS-150	75	150	+9	-12	1	16	-107	-127	-142	0.017	0.39	5.8	-23	-17	100	12	140	(see YONI on our website)	BR386	119.95
ZOS-200	100	200	+10	-11	1	16	-106	-126	-141	0.015	0.42	7.7	-25	-20	100	12	140		BR386	119.95
ZOS-300	150	280	+9	-13	1	16	-103	-123	-142	0.017	0.50	11	-27	-20	100	12	140		BR386	119.95
ZOS-400	200	380	+10	-13	1	16	-100	-120	-136	0.021	0.50	15	-24	-18	100	12	140	(see YONI on our website)	BR386	119.95
ZOS-535	300	525	+9	-13	1	16	-96	-118	-131	0.018	0.50	18	-27	-20	100	12	140		BR386	119.95
ZOS-765	485	765	+8.5	-14	1	16	-96	-117	-132	0.033	0.72	22	-27	-17	100	12	140		BR386	119.95
ZOS-1025	685	1025	+8	-13	1	16	-92	-112	-136	0.051	1.00	30	-25	-18	100	12	140	BR386	119.95	

pin connections

see case style outline drawings

PORT	hx	jc	jd	jr	kg	mj
RF OUT	2	13	7	9	10	1
V-CC	1	2	8	12	14	4
V-TUNE	8	5	1	3	2	16
GND EXT	3,4,5,6,7	all others				

ZOS schematic



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