

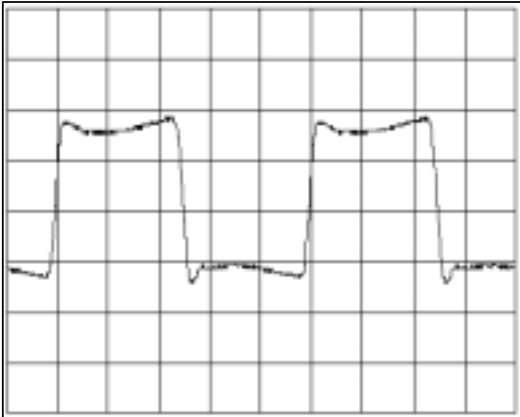
Adjustment for IC-F3061T/S, IC-F3161T/S, IC-F3161DT/DS

Adjustment	No.	Adjustment Condition & Tuning	Value	REF No.	CK.POINT																		
PREPARATION		Volaged meter input impedance: 50 k ohm and above																					
LOCK VOLTAGE ADJUSTMENT		<p>Connect to the PC(IBM compatible)through the cloning caba(OPC-966), boot up the adjustment software. (CS-F3060 ADJ,CS-F3160/F5060 ADJ)</p> <p>Set the value as below on the adjustment screen.</p> <table><tr><td>LV (RX1)</td><td>164 [3.2]</td></tr><tr><td>LV (RX2)</td><td>153 [3.0]</td></tr><tr><td>LV (TX)</td><td>153 [3.0]</td></tr></table> <p>Push F5 key to update for current value, and verify them.</p> <table><tr><td></td><td>ADJUSTMENT</td><td>LVIN</td></tr><tr><td>154.9MHz RX</td><td>RX LVA1</td><td>3.2</td></tr><tr><td>174MHz RX</td><td>RX LVA2</td><td>3.0</td></tr><tr><td>174MHz TX</td><td>TX LVA</td><td>3.0</td></tr></table>	LV (RX1)	164 [3.2]	LV (RX2)	153 [3.0]	LV (TX)	153 [3.0]		ADJUSTMENT	LVIN	154.9MHz RX	RX LVA1	3.2	174MHz RX	RX LVA2	3.0	174MHz TX	TX LVA	3.0	<p>← (ADJ screen)</p> <p>← LV (RX1)</p> <p>← LV (RX2)</p> <p>← LV (TX)</p>		
LV (RX1)	164 [3.2]																						
LV (RX2)	153 [3.0]																						
LV (TX)	153 [3.0]																						
	ADJUSTMENT	LVIN																					
154.9MHz RX	RX LVA1	3.2																					
174MHz RX	RX LVA2	3.0																					
174MHz TX	TX LVA	3.0																					
LOCK VOLTAGE VERIFY		<p>Verify the Lock Voltage as below.</p> <table><tr><td></td><td>LVIN</td></tr><tr><td>136MHz RX</td><td>0.6 - 1.6</td></tr><tr><td>155MHz RX</td><td>0.6 - 1.6</td></tr><tr><td>136MHz TX</td><td>0.6 - 1.6</td></tr></table>		LVIN	136MHz RX	0.6 - 1.6	155MHz RX	0.6 - 1.6	136MHz TX	0.6 - 1.6	<p>←</p> <p>←</p> <p>←</p>		(ADJ screen) LVIN										
	LVIN																						
136MHz RX	0.6 - 1.6																						
155MHz RX	0.6 - 1.6																						
136MHz TX	0.6 - 1.6																						
FREQUENCY ADJUSTMENT		<p>Set the TX frequency to the upper edge of the band, and set the frequency as below.</p> <table><tr><td>Frequency</td><td>(adjustment frequency)±250Hz</td></tr></table>	Frequency	(adjustment frequency)±250Hz	<p>← (ADJ screen)</p> <p>← REF</p>		ANT connector																
Frequency	(adjustment frequency)±250Hz																						
TX POWER ADJUSTMENT		<p>Set the voltage of the HV line as below in transmitting. [USA],[GEN]ver.=7.5V [EUR] ver.=7.2V</p> <p>Adjust the TX power as below.</p> <table><tr><td>ADJUSTMENT FREQUENCY</td><td>155MHz</td></tr><tr><td>Hi Power</td><td>5.0 W</td></tr><tr><td>L2 Power</td><td>2.0 W</td></tr><tr><td>L1 Power</td><td>1.0 W</td></tr></table>	ADJUSTMENT FREQUENCY	155MHz	Hi Power	5.0 W	L2 Power	2.0 W	L1 Power	1.0 W	<p>← (ADJ screen)</p> <p>← Power (Hi)</p> <p>← Power (L2)</p> <p>← Power (L1)</p>		ANT connector										
ADJUSTMENT FREQUENCY	155MHz																						
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## Adjustment for IC-F3061T/S, IC-F3161T/S, IC-F3161DT/DS

Adjustment	No.	Adjustment Condition & Tuning	Value	REF No.	CK.POINT								
TX POWER VERIFY		<p>Verify the TX power in the band.</p> <table><tr><td>Hi Power</td><td>4.0 - 6.0 W</td></tr><tr><td>L2 Power</td><td>1.0 - 3.0 W</td></tr><tr><td>L1 Power</td><td>0.5 - 2.0 W</td></tr></table>	Hi Power	4.0 - 6.0 W	L2 Power	1.0 - 3.0 W	L1 Power	0.5 - 2.0 W	<p>←</p> <p>←</p> <p>←</p>		ANT connector		
Hi Power	4.0 - 6.0 W												
L2 Power	1.0 - 3.0 W												
L1 Power	0.5 - 2.0 W												
CURRENT CONSUMPTION (TX) VERIFY		<p>Verify the current consumption.</p> <table><tr><td>Hi Power</td><td>Less than 2A</td></tr></table>	Hi Power	Less than 2A	<p>←</p>		HV line						
Hi Power	Less than 2A												
SPRIOUS VERIFY		<p>Verify the sprious emission. [USA], [GEN] ver.</p> <table><tr><td>Sprious Emission</td><td>Less than 70dB from the carrier level</td></tr></table> <p>[EUR] ver.</p> <table><tr><td>Sprious Emission</td><td>Less than 0.25uW&gt;1GHz Less than 1.0uW &gt;1GHz</td></tr></table>	Sprious Emission	Less than 70dB from the carrier level	Sprious Emission	Less than 0.25uW>1GHz Less than 1.0uW >1GHz	<p>←</p> <p>←</p>		ANT connector  ANT connector				
Sprious Emission	Less than 70dB from the carrier level												
Sprious Emission	Less than 0.25uW>1GHz Less than 1.0uW >1GHz												
NOTICE FOR MODULATION ADJUSTMENTS		<p>The modulation adjustments for wide and middle can not be done at the same time, Wide/Middle is selected on the cloning software.</p> <p>Middle(20kHz) is for [EUR] only. Set the modulation analyzer as below.</p> <table><tr><td>HPF</td><td>OFF 50Hz (for S/N measurement)</td></tr><tr><td>LPF</td><td>20kHz</td></tr><tr><td>DE-EMPHASIS</td><td>OFF</td></tr><tr><td>DETECTOR</td><td>(P-P) / 2</td></tr></table>	HPF	OFF 50Hz (for S/N measurement)	LPF	20kHz	DE-EMPHASIS	OFF	DETECTOR	(P-P) / 2			
HPF	OFF 50Hz (for S/N measurement)												
LPF	20kHz												
DE-EMPHASIS	OFF												
DETECTOR	(P-P) / 2												

## Adjustment for IC-F3061T/S, IC-F3161T/S, IC-F3161DT/DS

Adjustment	No.	Adjustment Condition & Tuning	Value	REF No.	CK.POINT																														
MODULATION BALANCE ADJUSTMENT		<p>Set the "MOD N" to "60" on the ADJ screen.</p> <p>While transmitting, push and hold "P0" key adjust the wave form on the ADJ screen BAL(Narrow).</p> <table border="1"><tr><td>ADJUSTMENT Freq</td><td>around 155MHz</td></tr></table> 	ADJUSTMENT Freq	around 155MHz	square wave	(ADJ screen) BAL (Narrow)	ANT connector																												
ADJUSTMENT Freq	around 155MHz																																		
MODULATION ADJUSTMENT		<p>Connect the AG to the ext. MIC jack, and set the AG as;</p> <p>Freq.=1kHz Level=150mVrms</p> <p>Adjust the deviation as below. Adjust the deviation in the center of the band first (MOD*C),then adjust the deviation in the upper and lower edge.</p> <table border="1"><thead><tr><th>NARROW</th><th>ADJUSTMENT ITEM</th><th>ADJUSTMENT VALUE.</th></tr></thead><tbody><tr><td>around 155MHz</td><td>MOD N C</td><td rowspan="3">±2.10 ±0.05kHz</td></tr><tr><td>around 136MHz</td><td>MOD N L</td></tr><tr><td>around 174MHz</td><td>MOD N H</td></tr></tbody></table> <table border="1"><thead><tr><th>WIDE</th><th>ADJUSTMENT ITEM</th><th>ADJUSTMENT VALUE.</th></tr></thead><tbody><tr><td>around 155MHz</td><td>MOD W C</td><td rowspan="3">±4.10 ±0.05kHz</td></tr><tr><td>around 136MHz</td><td>MOD W L</td></tr><tr><td>around 174MHz</td><td>MOD W H</td></tr></tbody></table> <table border="1"><thead><tr><th>MID</th><th>ADJUSTMENT ITEM</th><th>ADJUSTMENT VALUE.</th></tr></thead><tbody><tr><td>around 155MHz</td><td>MOD M C</td><td rowspan="3">±3.25 ±0.05kHz</td></tr><tr><td>around 136MHz</td><td>MOD M L</td></tr><tr><td>around 174MHz</td><td>MOD M H</td></tr></tbody></table>	NARROW	ADJUSTMENT ITEM	ADJUSTMENT VALUE.	around 155MHz	MOD N C	±2.10 ±0.05kHz	around 136MHz	MOD N L	around 174MHz	MOD N H	WIDE	ADJUSTMENT ITEM	ADJUSTMENT VALUE.	around 155MHz	MOD W C	±4.10 ±0.05kHz	around 136MHz	MOD W L	around 174MHz	MOD W H	MID	ADJUSTMENT ITEM	ADJUSTMENT VALUE.	around 155MHz	MOD M C	±3.25 ±0.05kHz	around 136MHz	MOD M L	around 174MHz	MOD M H	<p>←</p> <p>←</p> <p>←</p> <p>←</p> <p>←</p> <p>←</p> <p>←</p> <p>←</p> <p>←</p>	(ADJ screen) MOD N C MOD N L MOD N H  MOD W C MOD W L MOD W H  MOD M C MOD M L MOD M H	ANT connector           ANT connector           ANT connector
NARROW	ADJUSTMENT ITEM	ADJUSTMENT VALUE.																																	
around 155MHz	MOD N C	±2.10 ±0.05kHz																																	
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## Adjustment for IC-F3061T/S, IC-F3161T/S, IC-F3161DT/DS

Adjustment	No.	Adjustment Condition & Tuning	Value	REF No.	CK.POINT										
DIGITAL MODULATION ADJUSTMENT		<p>Install the UT-119H/UT-126H to the transceiver (MAIN/MAIN-A J2) .</p> <p>Set "Dig Mode" to 7, and transmit in a digital ch. And adjust the deviation as below.</p> <table><tr><th>FREQUENCY</th><th>ADJUSTMENT ITEM</th><th>ADJUSTMENT VALUE.</th></tr><tr><td>around 155MHz</td><td>MOD D C</td><td rowspan="3">±1.37 ±0.02kHz</td></tr><tr><td>around 136MHz</td><td>MOD D L</td></tr><tr><td>around 174MHz</td><td>MOD D H</td></tr></table>	FREQUENCY	ADJUSTMENT ITEM	ADJUSTMENT VALUE.	around 155MHz	MOD D C	±1.37 ±0.02kHz	around 136MHz	MOD D L	around 174MHz	MOD D H	<p>← (ADJ screen)</p> <p>← MOD D C</p> <p>← MOD D L</p> <p>← MOD D H</p>		ANT connector
FREQUENCY	ADJUSTMENT ITEM	ADJUSTMENT VALUE.													
around 155MHz	MOD D C	±1.37 ±0.02kHz													
around 136MHz	MOD D L														
around 174MHz	MOD D H														
DEVIATION VERIFY		<p>Verify the deviation as below in the band.</p> <p>In cace of 60% deviation</p> <table><tr><th>DEVIATION LEVEL</th><td>10 - 20 mVrms</td></tr></table> <p>In cace of 15mVrms input</p> <table><tr><td>WIDE</td><td>±2.20 -±3.80 kHz</td></tr><tr><td>MID</td><td>±1.75 -±3.05 kHz</td></tr><tr><td>NARROW</td><td>±1.10 -±1.90 kHz</td></tr></table>	DEVIATION LEVEL	10 - 20 mVrms	WIDE	±2.20 -±3.80 kHz	MID	±1.75 -±3.05 kHz	NARROW	±1.10 -±1.90 kHz	<p>←</p> <p>←</p> <p>←</p> <p>←</p>		ANT connector  ANT connector		
DEVIATION LEVEL	10 - 20 mVrms														
WIDE	±2.20 -±3.80 kHz														
MID	±1.75 -±3.05 kHz														
NARROW	±1.10 -±1.90 kHz														
CTCSS/DTCS DEVIATION ADJUSTMENT		<p>Adjust the deviation of CTCSS signal(151.4Hz) on the ADJ screen.</p> <table><tr><th>ADJUSTMENT FREQUENCY</th><td>around 155MHz</td></tr><tr><td>WIDE</td><td>±0.70 ± 0.02 kHz</td></tr></table>	ADJUSTMENT FREQUENCY	around 155MHz	WIDE	±0.70 ± 0.02 kHz	<p>← (ADJ screen)</p> <p>← CTCSS/DTCS</p>		ANT connector						
ADJUSTMENT FREQUENCY	around 155MHz														
WIDE	±0.70 ± 0.02 kHz														
CTCSS/DTCS DEVIATION VERIFY		<p>Verify the deviation of the CTCSS and DTCS (CODE:007) signals as below.</p> <table><tr><td>WIDE</td><td>±0.50 -±0.90 kHz</td></tr><tr><td>MID</td><td>±0.40 -±0.75 kHz</td></tr><tr><td>NARROW</td><td>±0.25 -±0.50 kHz</td></tr></table>	WIDE	±0.50 -±0.90 kHz	MID	±0.40 -±0.75 kHz	NARROW	±0.25 -±0.50 kHz	<p>←</p> <p>←</p> <p>←</p>		ANT connector				
WIDE	±0.50 -±0.90 kHz														
MID	±0.40 -±0.75 kHz														
NARROW	±0.25 -±0.50 kHz														
2TONE 5TONE,DTMF DEVIATION ADJUSTMENT		<p>Adjust the deviation of signal on the ADJ screen (IC-F3161T/S,IC-F3161DT/S only) .</p> <table><tr><td>NARROW</td><td>±1.50 kHz</td></tr></table>	NARROW	±1.50 kHz	<p>← (ADJ screen)</p> <p>← S.Tone</p>		ANT connector								
NARROW	±1.50 kHz														
2TONE 5TONE,DTMF DEVIATION VERIFY		<p>Verify the deviation as below.</p> <table><tr><td>WIDE</td><td>±2.40 -±3.60 kHz</td></tr><tr><td>MID</td><td>±1.90 -±2.90 kHz</td></tr><tr><td>NARROW</td><td>±1.20 -±1.80 kHz</td></tr></table>	WIDE	±2.40 -±3.60 kHz	MID	±1.90 -±2.90 kHz	NARROW	±1.20 -±1.80 kHz	<p>←</p> <p>←</p> <p>←</p>	DTMF=P3	ANT connector				
WIDE	±2.40 -±3.60 kHz														
MID	±1.90 -±2.90 kHz														
NARROW	±1.20 -±1.80 kHz														
TX S/N VERIFY		<p>Verify the S/N ratio as below.(70% dev.)</p> <table><tr><td>WIDE</td><td>More than 40dB</td></tr><tr><td>MID</td><td>More than 38dB</td></tr><tr><td>NARROW</td><td>More than 34dB</td></tr></table>	WIDE	More than 40dB	MID	More than 38dB	NARROW	More than 34dB	<p>←</p> <p>←</p> <p>←</p>		ANT connector				
WIDE	More than 40dB														
MID	More than 38dB														
NARROW	More than 34dB														

Details of modification

		TYPE(PARTS)		Location in schematic		Reason of modification
Unit	REF NO.	F3061	F3161	F3061	F3161	
FRONT/FRONT-A	Q505	UMG2N	-	2G	-	Due to the change of CPU.
	Q514	UNR9113J	-	2F	-	Due to the change of CPU.
	Q517	-	UNR9213J	-	3 F	Due to the change of CPU.
	D502	MA2S728	-	1G	-	Due to the change of CPU.
	D503	MA2S728	-	1F	-	Due to the change of CPU.
	D509	-	MA8110 M	-	1G	Due to the change of CPU.
	R512	-	10 ERJ2GE	-	5I	Due to the change of CPU.
	R517	ERJ2GE-JPW	-	1G	-	Due to the change of CPU.
	R518	ERJ2GE-JPW	-	1G	-	Due to the change of CPU.
	R519	10K ERJ2GE	-	2G	-	Due to the change of CPU.
	R520	10K ERJ2GE	-	2G	-	Due to the change of CPU.
	R545	10K ERJ2GE	-	2G	-	Due to the change of CPU.
	R568	-	100K ERJ2GE	-	3C	Due to the change of CPU.
	R569	-	100K ERJ2GE	-	3C	Due to the change of CPU.
	R570	-	100K ERJ2GE	-	3C	Due to the change of CPU.
	R571	-	100K ERJ2GE	-	3E	Due to the change of CPU.
	R572	-	100K ERJ2GE	-	2B	Due to the change of CPU.
	C519	-	0.047 ECJ10 10V B	-	5I	Due to the change of CPU.
	C524	0.001 ECJ10 B	-	1G	-	Due to the change of CPU.
	C551	-	47P ECJ10 CH	-	4K	Due to the change of CPU.
	C552	-	47P ECJ10 CH	-	4K	Due to the change of CPU.
	C554	-	47P ECJ10 CH	-	4K	Due to the change of CPU.
	C556	-	47P ECJ10 CH	-	3K	Due to the change of CPU.
	C558	-	47P ECJ10 CH	-	3K	Due to the change of CPU.
	C562	-	0.001 ECJ10 B	-	3B	Due to the change of CPU.
	MC501	SKB-2746 LPC	EM6027P-46C33-G-01	3H	3H	Due to the change of CPU.
	EP501	B-6418	B-6947	-	-	Change of PC board
MAIN/MAIN-A	IC18	HD64F2268TFV (EMPTY)	HD64F2552RBR26DV(EMPTY)	8M	8M	Due to the change of CPU.
	IC19	24LC512T-I/SM	24LC1025T-I/SM	70	6P	Due to the change of CPU.
	IC21	NJM2125F	NJM2904V	2C	2C/7C	Due to the change of CPU.
	IC22	CD4053B PWR	-	7J	-	Due to the change of CPU.
	IC24	CD4094BPWR	-	100	-	Due to the change of CPU.
	IC25	-	NJM2711F	-	6C	Due to change of IF circuit (to improve selectivity at digital mode)
	IC26	-	TC7W53FK F	-	11D	Due to change of modulation circuit
	Q38	2SC4116 BL F	-	6F	-	Due to change of IF circuit (to improve selectivity at digital mode)
	Q47	-	UNR9213J	-	2P	VCC switching circuit
	Q48	-	TPC6103 F	-	1P	VCC switching circuit
	Q49	-	2SC4116 BL F	-	6C	Due to change of IF circuit (to improve selectivity at digital mode)
	Q50	-	UNR9213J	-	3L	Due to the change of CPU.
	Q52	-	2SK3019	-	5D	Due to the change of CPU.
	D43	-	MA2S111	-	7J	Due to the change of CPU.
	L48	-	MLF1608A 1R8K 1.8U	-	5F	Due to change of IF circuit (to improve selectivity at digital mode)
	L51	-	NLV25T 4R7J 4.7U	-	30	Due to the change of CPU.
	R1	270K ERJ2GE	150K ERJ2GE	2C	2C	Due to the change of CPU.
	R95	100K ERJ2GE	220K ERJ2GE	5F	5F	Due to change of IF circuit (to improve selectivity at digital mode)
	R98	680 ERJ2GE	-	5F	-	Due to change of IF circuit (to improve selectivity at digital mode)
	R101	2.2K ERJ2GE	1.8K ERJ2GE	5E	5E	Due to change of IF circuit (to improve selectivity at digital mode)
	R122	470 ERJ2GE	120 ERJ2GE	5D	6D	Due to change of IF circuit (to improve selectivity at digital mode)
	R123	100K ERJ2GE	68K ERJ2GE	5D	6D	Due to change of IF circuit (to improve selectivity at digital mode)
	R124	4.7K ERJ2GE	1.5K ERJ2GE	6D	6D	Due to change of IF circuit (to improve selectivity at digital mode)
	R141	39K ERJ2RKF	33K ERJ2GE	8B	8B	Due to change of modulation circuit
	R143	39K ERJ2RKF	33K ERJ2GE	8B	8B	Due to change of modulation circuit
	R147	330K ERJ2GE	470K ERJ2GE	9C	9C	Due to change of modulation circuit
	R148	33K ERJ2GE	3.9K ERJ2GE	9C	9C	Due to change of modulation circuit
	R149	27K ERJ2GE	ERJ2GE-JPW	10C	10C	Due to change of modulation circuit
	R150	470 ERJ2GE	10 ERJ2GE	10B	10B	Due to change of modulation circuit
	R151	470 ERJ2GE	100 ERJ2GE	10B	10B	Due to change of modulation circuit

Details of modification

		TYPE(PARTS)		Location in schematic		Reason of modification
Unit	REF NO.	F3061	F3161	F3061	F3161	
	R156	8.2K ERJ2GE	3.3K ERJ2GE	10B	10E	Due to change of modulation circuit
	R165	3.9K ERJ2GE	ERJ2GE-JPW	7G	7G	Due to change of modulation circuit
	R166	4.7K ERJ2GE	-	10D	-	Due to change of modulation circuit
	R174	2.7K ERJ2GE	6.8K ERJ2GE	10D	10C	Due to change of modulation circuit
	R175	820 ERJ2GE	330 ERJ2GE	10C	10C	Due to change of modulation circuit
	R181	270K ERJ2RKF	120K ERJ2GE	7B	7B	Due to change of modulation circuit
	R207	-	12K ERJ2GE	-	8H	Due to change of modulation circuit
	R233	EXB28V104J 100K	-	7N	-	Due to the change of CPU.
	R236	EXB28V104J 100K	-	7N	-	Due to the change of CPU.
	R237	1K ERJ2GE	-	7N	-	Due to the change of CPU.
	R242	EXB-V4V 1K	EXB28V102J 1K	90	7J	Due to the change of CPU.
	R254	1K ERJ2GE	-	10M	-	Due to the change of CPU.
	R255	EXB-V4V 1K	EXB28V102J 1K	10L	100	Due to the change of CPU.
	R256	1K ERJ2GE	-	10N	-	Due to the change of CPU.
	R283	100K ERJ2GE	180K ERJ2GE	4H	4H	Due to the change of CPU.
	R289	120K ERJ2GE	100K ERJ2GE	11E	11E	Due to change of modulation circuit
	R292	150 ERJ2GE	10 ERJ2GE	6G	6G	Due to change of IF circuit (to improve selectivity at digital mode)
	R293	47 ERJ2GE	150 ERJ2GE	6H	6H	Due to change of IF circuit (to improve selectivity at digital mode)
	R301	100K ERJ2GE	-	6N	-	Due to the change of CPU.
	R303	4.7K ERJ2GE	-	6E	-	Due to change of IF circuit (to improve selectivity at digital mode)
	R304	3.3K ERJ2GE	-	6F	-	Due to change of IF circuit (to improve selectivity at digital mode)
	R307	100K ERJ2GE	-	110	-	Due to the change of CPU.
	R320	100K ERJ2GE	-	9F	-	Due to the change of CPU.
	R328	ERTJ0EP473J	-	9C	-	Due to change of modulation circuit
	R329	33K ERJ2GE	-	10C	-	Due to change of modulation circuit
	R330	6.8K ERJ2GE	15K ERJ2GE	10C	10C	Due to change of modulation circuit
	R332	680 ERJ2GE	-	10D	-	Due to change of modulation circuit
	R334	15K ERJ2GE	ERJ2GE-JPW	7B	8G	Due to change of modulation circuit
	R336	ERTJ0EP473J	-	7G	-	Due to the change of CPU.
	R345	-	100K ERJ2GE	-	2P	Due to the change of CPU.
	R346	-	270K ERJ2GE	-	1P	Due to the change of CPU.
	R351	-	6.8K ERJ2GE	-	6B	Due to change of IF circuit (to improve selectivity at digital mode)
	R352	-	5.6K ERJ2GE	-	6B	Due to change of IF circuit (to improve selectivity at digital mode)
	R353	-	100 ERJ2GE	-	5B	Due to change of IF circuit (to improve selectivity at digital mode)
	R354	-	180K ERJ2GE	-	5C	Due to change of IF circuit (to improve selectivity at digital mode)
	R355	-	1K ERJ2GE	-	6C	Due to change of IF circuit (to improve selectivity at digital mode)
	R356	-	100 ERJ2GE	-	6C	Due to change of IF circuit (to improve selectivity at digital mode)
	R357	-	4.7K ERJ2GE	-	5D	Due to change of IF circuit (to improve selectivity at digital mode)
	R358	-	1K ERJ2GE	-	6H	Due to the change of CPU.
	R359	-	100K ERJ2GE	-	10P	Due to the change of CPU.
	R360	-	100K ERJ2GE	-	6L	Due to the change of CPU.
	R361	-	100K ERJ2GE	-	6L	Due to the change of CPU.
	R362	-	100K ERJ2GE	-	6L	Due to the change of CPU.
	R363	-	100K ERJ2GE	-	10N	Due to the change of CPU.
	R364	-	100K ERJ2GE	-	80	Due to the change of CPU.
	R365	-	100K ERJ2GE	-	80	Due to the change of CPU.
	R366	-	100K ERJ2GE	-	90	Due to the change of CPU.
	R367	-	100K ERJ2GE	-	90	Due to the change of CPU.
	R368	-	100K ERJ2GE	-	10N	Due to the change of CPU.
	R369	-	100K ERJ2GE	-	7J	Due to the change of CPU.
	R370	-	100K ERJ2GE	-	10G	Due to the change of CPU.
	R371	-	100K ERJ2GE	-	11G	Due to the change of CPU.
	R372	-	100K ERJ2GE	-	70	Due to the change of CPU.
	R373	-	100K ERJ2GE	-	7N	Due to the change of CPU.
	R374	-	100K ERJ2GE	-	7N	Due to the change of CPU.
	R375	-	100K ERJ2GE	-	7N	Due to the change of CPU.
	R376	-	100K ERJ2GE	-	7N	Due to the change of CPU.

Details of modification

		TYPE(PARTS)		Location in schematic		Reason of modification
Unit	REF NO.	F3061	F3161	F3061	F3161	
	R377	-	100K ERJ2GE	-	70	Due to the change of CPU.
	R378	-	1K ERJ2GE	-	3D	Due to the change of CPU.
	R379	-	1K ERJ2GE	-	3C	Due to the change of CPU.
	R380	-	1.5K ERJ2GE	-	6C	Due to change of IF circuit (to improve selectivity at digital mode)
	R381	-	1.2K ERJ2GE	-	11C	Due to change of modulation circuit
	R382	-	3.3K ERJ2GE	-	11C	Due to change of modulation circuit
	R384	-	1K ERJ2GE	-	90	Due to the change of CPU.
	R385	-	100K ERJ2GE	-	10N	Due to the change of CPU.
	R386	-	ERJ2GE-JPW	-	10D	Due to change of modulation circuit
	R388	-	100K ERJ2GE	-	7C	Due to change of modulation circuit
	R389	-	10K ERJ2GE	-	7C	Due to change of modulation circuit
	R390	-	100K ERJ2GE	-	7C	Due to change of modulation circuit
	R391	-	56K ERJ2GE	-	2B	Due to the change of CPU.
	R392	-	560K ERJ2GE	-	2B	Due to the change of CPU.
	R393	-	39K ERJ2GE	-	2B	Due to the change of CPU.
	C1	39P ECJ10 CH	68P ECJ10 CH	-	2C	Due to the change of CPU.
	C190	-	7P ECJ10 CH	-	5F	Due to change of IF circuit (to improve selectivity at digital mode)
	C209	6P ECJ10 CH	5P ECJ10 CH B	6G	6G	Due to change of IF circuit (to improve selectivity at digital mode)
	C210	22P ECJ10 CH	27P ECJ10 CH	6G	6G	Due to change of IF circuit (to improve selectivity at digital mode)
	C214	4P ECJ10 CH B	-	6G	-	Due to change of modulation circuit
	C216	470P ECJ10 B	820P ECJ10 B	5D	5D	Due to change of modulation circuit
	C217	470P ECJ10 B	820P ECJ10 B	5D	5D	Due to change of modulation circuit
	C240	47P ECJ10 CH	33P ECJ10 CH	9C	9C	Due to change of modulation circuit
	C241	0.0012 ECJ10 B	0.0056 ECJ10 25V B	9C	9C	Due to change of modulation circuit
	C255	0.01 ECJ10 16V B	-	10D	-	Due to change of modulation circuit
	C312	0.1 ECJ10 10V B	1 ECJ10 6.3V B	8G	8G	Due to change of modulation circuit
	C316	0.1 ECJ10 10V B	0.47 ECJ10 6.3V B	10N	10L	Due to the change of CPU.
	C362	-	0.1 ECJ10 10V B	-	80	Due to the change of CPU.
	C378	0.01 ECJ10 16V B	0.1 ECJ10 10V B	5H	5H	Due to the change of CPU.
	C397	-	0.001 ECJ10 B	-	7N	Due to the change of CPU.
	C405	0.1 ECJ10 10V B	-	6E	-	Due to change of IF circuit (to improve selectivity at digital mode)
	C406	0.1 ECJ10 10V B	-	6F	-	Due to change of IF circuit (to improve selectivity at digital mode)
	C408	4.7 10V MSVA	22 10V MSVA	30	30	Due to the change of CPU.
	C410	-	0.001 ECJ10 B	-	30	Due to the change of CPU.
	C421	0.001 ECJ10 B	0.1 ECJ10 10V B	7L	10N	Due to the change of CPU.
	C424	0.01 ECJ10 16V B	-	3D	-	Due to the change of CPU.
	C429	1 ECJ10 6.3V B	-	10C	-	Due to change of modulation circuit
	C432	-	1P ECJ10 CH B	-	6M	Due to change of modulation circuit
	C433	-	0.001 ECJ10 B	-	10P	Due to the change of CPU.
	C434	-	0.001 ECJ10 B	-	10P	Due to the change of CPU.
	C437	-	0.001 ECJ10 B	-	2P	Due to the change of CPU.
	C438	-	0.001 ECJ10 B	-	2P	Due to the change of CPU.
	C441	-	0.1 ECJ10 10V B	-	5B	Due to change of modulation circuit
	C443	-	0.1 ECJ10 10V B	-	6C	Due to change of modulation circuit
	C444	-	0.1 ECJ10 10V B	-	5C	Due to change of modulation circuit
	C445	-	0.1 ECJ10 10V B	-	5C	Due to change of modulation circuit
	C446	-	0.033 ECJ10 10V B	-	6C	Due to change of modulation circuit
	C447	-	27P ECJ10 CH	-	5D	Due to change of modulation circuit
	C448	-	0.1 ECJ10 10V B	-	6D	Due to change of modulation circuit
	C449	-	0.001 ECJ10 B	-	6H	Due to change of modulation circuit
	C450	-	0.1 ECJ10 10V B	-	11D	Due to change of modulation circuit
	C451	-	1 ECJ10 6.3V B	-	10B	Due to change of modulation circuit
	C452	-	0.1 ECJ10 10V B	-	7C	Due to change of modulation circuit
	C453	-	0.0018 ECJ10 B	-	5D	Due to change of modulation circuit
	EP6	B-6417	B-6677	-	-	Change of PC board
	EP7	-	UT-126H ACC	-	-	Due to adding of the version which has UT-126H as standard.

## Adjustment for IC-F3061T/S, IC-F3161T/S, IC-F3161DT/DS

Adjustment	No.	Adjustment Condition & Tuning	Value	REF No.	CK.POINT								
NOTICE FOR RX ADJUSTMENTS		For verify of RX adjustment must be done with a SG set as; Freq.=1kHz Dev.=70% Connect an 8 ohms load to the SP terminal.											
RX SENSITIVITY ADJUSTMENT		Set the SG as; <table><tr><td>FREQUENCY</td><td>around 136MHz</td></tr><tr><td>LEVEL</td><td>+20dBu</td></tr></table> Adjust the "BPF C ALL" on the ADJ screen for maximum sensitivity.	FREQUENCY	around 136MHz	LEVEL	+20dBu		(ADJ screen) BPF C ALL	RSSI line				
FREQUENCY	around 136MHz												
LEVEL	+20dBu												
RX SENSITIVITY VERIFY		Verify the sensitivity as below. <table><tr><td>Sensitivity</td><td>Less than -10 dBu (@12dB SINAD)</td></tr></table>	Sensitivity	Less than -10 dBu (@12dB SINAD)	←		ANT connector EXT. SP						
Sensitivity	Less than -10 dBu (@12dB SINAD)												
S-METER ADJUSTMENT		"RX SENSITIVITY" must be adjusted before "S-METER". "S-METER" must be adjusted if "RX SENSITIVITY" is adjusted again.  Setting S3 level Set the SG as; <table><tr><td>Freq.</td><td>around 136MHz</td></tr><tr><td>Level</td><td>+23dBu</td></tr></table>  Setting S1 level Set the SG as; <table><tr><td>Freq.</td><td>around 136MHz</td></tr><tr><td>Level</td><td>-7dBu</td></tr></table>	Freq.	around 136MHz	Level	+23dBu	Freq.	around 136MHz	Level	-7dBu	←  ←	(ADJ screen) RSSI RSSI S3 Level  (ADJ screen) RSSI RSSI S1 Level	ANT connector  ANT connector
Freq.	around 136MHz												
Level	+23dBu												
Freq.	around 136MHz												
Level	-7dBu												



## Adjustment for IC-F3061T/S, IC-F3161T/S, IC-F3161DT/DS

Adjustment	No.	Adjustment Condition & Tuning	Value	REF No.	CK.POINT						
SQUELCH ADJUSTMENT		<p>Set the SG as;</p> <table><tr><td>Freq.</td><td>around 155MHz</td></tr><tr><td>Level</td><td>-14dBu</td></tr></table> <p>Increase the D/A value of "SQL"to close the sqelch once, then decrease the D/A value of "SQL"to set to the point where the squelch just opens.</p>	Freq.	around 155MHz	Level	-14dBu	←	(ADJ screen) SQL	ANT connector		
Freq.	around 155MHz										
Level	-14dBu										
SQUELCH VERIFY		<p>Verify the sqelch sensitivity as below.</p> <table><tr><td>Sqelch sensitivity</td><td>Less than -10dBu</td></tr></table> <p>Dropping the SG level, verify the squelch opening.</p>	Sqelch sensitivity	Less than -10dBu	←		ANT connector				
Sqelch sensitivity	Less than -10dBu										
AF POWER VERIFY		<p>Set the SG level to +60dBu Turn the [VOL] untill the distortion meter shows"5%", and verify the AF level below.</p> <table><tr><td>AF OUTPUT</td><td>More than 0.35 W (@ 8 ohms load)</td></tr></table> <p>Or, turn the [VOL] untill the distortion meter shows "10%". and verify the AF level below.</p> <table><tr><td>AF OUTPUT</td><td>More than 0.40 W</td></tr></table>	AF OUTPUT	More than 0.35 W (@ 8 ohms load)	AF OUTPUT	More than 0.40 W	←		EXT.SP EXT.SP		
AF OUTPUT	More than 0.35 W (@ 8 ohms load)										
AF OUTPUT	More than 0.40 W										
RX S/N VERIFY		<p>Set the SG level +60dB, and turn the [VOL] to set the AF output level to the haif of the lated level.</p> <table><tr><td>WIDE</td><td>More than 40dB</td></tr><tr><td>MID</td><td>More than 38dB</td></tr><tr><td>NARROW</td><td>More than 34dB</td></tr></table>	WIDE	More than 40dB	MID	More than 38dB	NARROW	More than 34dB	← ← ←		ANT connector EXT.SP
WIDE	More than 40dB										
MID	More than 38dB										
NARROW	More than 34dB										
DEGITAL OPERATION VERIFY		<p>Install the UT-119H/UT-126H to the transceiver (MAIN/MAIN-A J2) . Verify that the digital operation can be done.</p>			INT.SP INT.MIC						
HOWLING VERIFY		<p>Set the SG to +60dBu. Verify that max audio(Turn the [VOL] max.clockwise) results in no houling.</p>			ANT connector INT.SP						

## Adjustment for IC-F3061T/S, IC-F3161T/S, IC-F3161DT/DS

Adjustment	No.	Adjustment Condition & Tuning	Value	REF No.	CK.POINT
MAX.CURRENT CONSUMPTION (RX) VERIFY		Verify the current consumption at max.audio.  <div>MAX.CURRENT</div> <div>Less than 600 mA</div>	←		HV line
CURRENT CONSUMPTION (STANDBY) VERIFY		Verify the current consumption in no accessory is attached.  <div>STANDBY CURRENT</div> <div>Less than 160 mA</div>	←		HV line