KENWOOD

REVISION INFORMATION

UHF DIGITAL TRANSCEIVER

TK-D340, TK-D340(U)

■ OVERVIEW

Add, Market code K, M.

■ DETAILS

COVER SECTION

Title	Line	No.RA037<Rev.001>	No.RA037<Rev.002>	Description
Revision		Rev.001	Rev.002	
Issue Date		2015/12	2016/02	
Brand Image		ILLUSTRATION(jvc.png)	ILLUSTRATION(jvc.png)	
Product Brand		B5B-7220-00	B5B-7220-10	
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0 COVER	12	Copyright 2015 by JVC KENWOOD Corporation. All rights reserved.No part of this manual may be reproduced, translated, distributed, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, for any purpose without the prior written permission of JVC KENWOOD Corporation.	Copyright 2016 by JVC KENWOOD Corporation. All rights reserved.No part of this manual may be reproduced, translated, distributed, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, for any purpose without the prior written permission of JVC KENWOOD Corporation.	
	24		Service Manual List	
	26		Manual number <td style='border: solid gray .5pt; padding: .5pt 1.5pt'>Model name <td style='border: solid gray .5pt; padding: .5pt 1.5pt'>Type <td style='border: solid gray .5pt; padding: .5pt 1.5pt'>Remarks	
	27		No.RA037< Rev.001 > TK-D340 K2,M2,E,E2 First edition	
	28		TK-D340(U) K2	

Title	Line	No.RA037<Rev.001>	No.RA037<Rev.002>	Description
	29		No.RA037< Rev.002 > TK-D340 K,K2,M,M2,E,E2 Revised This service manual	
	30		TK-D340(U) <td style='border: solid gray .5pt; padding: .5pt 1.5pt'>K,K2	
SPECIFICATION	1	(K2,M2 TYPE)	(K,M,K2,M2 TYPE)	
	3	Frequency Range 400~470MHz	Frequency Range K,M 450 ~ 520 MHz	
	4	-	K2,M2 400 ~ 470 MHz	

SECTION 2 SPECIFIC SERVICE INSTRUCTIONS

Title	Line	No.RA037<Rev.001>	No.RA037<Rev.002>	Description
2.1 SYSTEM SET-UP	1	ILLUSTRATION(ra037_2001.png)	ILLUSTRATION(ra037_2001.png)	XML Structure
2.3.1 Frequency Configuration	3	Fig. 1 Frequency configuration ILLUSTRATION(ra037_2004.png)	Fig. 1 Frequency configuration ILLUSTRATION(ra037_2004.png)	XML Structure
2.3.4.1 Frequency synthesizer	3	The VCO consists of 2 VCOs and covers a dual range of 350.05~420.05MHz and 400~470MHz. The VCO generates 350.05~420.05MHz to provide the first local signal for reception. The operating frequency is generated by Q6 in transmitting mode and Q5 in receiving mode. The oscillation frequency is controlled by applying the VCO control voltage the variable capacitance diodes (D5, D9, D11, D13 and D17 while transmitting and D4, D8,D12 and D16 while receiving).	The VCO consists of 2 VCOs and covers a dual range of 400.05~470.05MHz (K,M) or 350.05~420.05MHz (K2,M2,E,E2) and 450~520MHz (K,M) or 400~470MHz (K2,M2,E,E2). The VCO generates 400.05~470.05MHz (K,M) or 350.05~420.05MHz (K2,M2,E,E2) to provide the first local signal for reception. The operating frequency is generated by Q6 in transmitting mode and Q5 in receiving mode. The oscillation frequency is controlled by applying the VCO control voltage the variable capacitance diodes (D5, D9, D11, D13 and D17 while transmitting and D4, D8,D12 and D16 while receiving).	
2.5.1 Main unit (XC1-117X-XX)	T	2.5.1 Main unit (XC1-1172-70)	2.5.1 Main unit (XC1-117X-XX)	
	42	Q291 FET DC switch(BATT)	Q291,292 FET DC switch(BATT)	
2.6.1 Main unit (XC1-117X-XX)	T	2.6.1 Main unit (XC1-1172-70)	2.6.1 Main unit (XC1-117X-XX)	

SECTION 4 ADJUSTMENT

Title	Line	No.RA037<Rev.001>	No.RA037<Rev.002>	Description
4.1 K,M,K2,M2 TYPE Test Equipment Required for Alignment	T	4.1 K2,M2 TYPETest Equipment Required for Alignment	4.1 K,M,K2,M2 TYPETest Equipment Required for Alignment	
4.2 Frequency and Signaling	4	CH RX (MHz) TX (MHz)	CH K, M K2,M2	

Title	Line	No.RA037<Rev.001>	No.RA037<Rev.002>	Description
	5	-	RX (MHz) TX (MHz) RX (MHz) TX (MHz)	
	6	1 435.05000 435.10000	1 485.05000 485.10000 435.05000 435.10000	
	7	2 400.05000 400.10000	2 450.05000 450.10000 400.05000 400.10000	
	8	3 469.95000 469.90000	3 519.95000 519.90000 469.95000 469.90000	
	9	4 435.00000 435.00000	4 485.00000 485.00000 435.00000 435.00000	
	10	5 435.20000 435.20000	5 485.20000 485.20000 435.20000 435.20000	
	11	6 435.40000 435.40000	6 485.40000 485.40000 435.40000 435.40000	
	12	7~16 - -	7~16 - - - -	
4.3 Preparations for Tuning the Transceiver	6	Tuning point RX (MHz) TX (MHz)	Tuning point K, M K2,M2	
	7	-	RX (MHz) TX (MHz) RX (MHz) TX (MHz)	
	8	Low 400.05000 400.10000	Low 450.05000 450.10000 400.05000 400.10000	
	9	Low' 417.55000 417.60000	Low' 467.55000 467.60000 417.55000 417.60000	

Title	Line	No.RA037<Rev.001>	No.RA037<Rev.002>	Description
	10	Center 435.05000 435.10000	Center 485.05000 485.10000 435.05000 435.10000	
	11	High' 452.55000 452.60000	High' 502.55000 502.60000 452.55000 452.60000	
	12	High 469.95000 469.90000	High 519.95000 519.90000 469.95000 469.90000	
4.4 Radio check Section	4	1. Frequency check 1)Test Channel Channel: 1 Test Signaling Mode: Analog Signaling: 1 PTT: Press [Transmit] button. f. counter Panel ANT Check 435.099347~435.100653M Hz (±1.5ppm@435.1MHz)	1. Frequency check 1)Test Channel Channel: 1 Test Signaling Mode: Analog Signaling: 1 PTT: Press [Transmit] button. f. counter ANT Check 435.099347~435.100653M Hz (±1.5ppm@435.1MHz)(K2,M2) 485.099272~485.100728MHz(±1.5ppm@485.1MHz)(K,M)	
	5	2. High power check (Battery voltage: 7.5V) 1)Test Channel Channel: 1 Test Signaling Mode: Analog Signaling: 1 PTT: Press [Transmit] button. Power meter Ammeter Panel ANT Check 3.5W~4.5W 2.3A or less	2. High power check (Battery voltage: 7.5V) 1)Test Channel Channel: 1 Test Signaling Mode: Analog Signaling: 1 PTT: Press [Transmit] button. Power meter Ammeter ANT Check 3.5W~4.5W 2.3A or less	
	6	2)Test Channel Channel: 2 Test Signaling Mode: Analog Signaling: 1 PTT: Press [Transmit] button. Power meter Ammeter Panel ANT Check 3.5W~4.5W 2.3A or less	2)Test Channel Channel: 2 Test Signaling Mode: Analog Signaling: 1 PTT: Press [Transmit] button. Power meter Ammeter ANT Check 3.5W~4.5W 2.3A or less	

Title	Line	No.RA037<Rev.001>	No.RA037<Rev.002>	Description
	7	3)Test Channel Channel: 3 Test Signaling Mode: Analog Signaling: 1 PTT: Press [Transmit] button. Power meter Ammeter Panel ANT Check 3.5W~4.5W 2.3A or less	3)Test Channel Channel: 3 Test Signaling Mode: Analog Signaling: 1 PTT: Press [Transmit] button. Power meter Ammeter ANT Check 3.5W~4.5W 2.3A or less	
	8	3. Low power check (Battery voltage: 7.5V) 1)Test Channel Channel: 1 Test Signaling Mode: Analog Signaling: 1 PTT: Press [Transmit] button. Power meter Ammeter Panel ANT Check 0.75W~1.25W1.2A or less	3. Low power check (Battery voltage: 7.5V) 1)Test Channel Channel: 1 Test Signaling Mode: Analog Signaling: 1 PTT: Press [Transmit] button. Power meter Ammeter ANT Check 0.75W~1.25W1.2A or less	
	9	2)Test Channel Channel: 2 Test Signaling Mode: Analog Signaling: 1 PTT: Press [Transmit] button. Power meter Ammeter Panel ANT Check 0.75W~1.25W1.2A or less	2)Test Channel Channel: 2 Test Signaling Mode: Analog Signaling: 1 PTT: Press [Transmit] button. Power meter Ammeter ANT Check 0.75W~1.25W1.2A or less	
	10	3)Test Channel Channel: 3 Test Signaling Mode: Analog Signaling: 1 PTT: Press [Transmit] button. Power meter Ammeter Panel ANT Check 0.75W~1.25W1.2A or less	3)Test Channel Channel: 3 Test Signaling Mode: Analog Signaling: 1 PTT: Press [Transmit] button. Power meter Ammeter ANT Check 0.75W~1.25W1.2A or less	
	11	4. MIC sensitivity check 1)Test Channel Channel: 1 Test Signaling Mode: Analog Signaling: 1 AG: 1kHz PTT: Press [Transmit] button. Deviation meter Oscillo-scopeAGAF VM Panel ANTSP/MIC connector Adjust AG input to get a standard MOD. 15.0mV±7.0mV	4. MIC sensitivity check 1)Test Channel Channel: 1 Test Signaling Mode: Analog Signaling: 1 AG: 1kHz PTT: Press [Transmit] button. Deviation meter Oscillo-scopeAGAF VM ANTSP/MIC connector Adjust AG input to get a standard MOD. 15.0mV±7.0mV	

Title	Line	No.RA037<Rev.001>	No.RA037<Rev.002>	Description
	12	5. Sensitivity check 1)Test Channel Channel: 1 Test Signaling Mode: Analog Signaling: 1 SSG output Wide: -115dBm (0.40µV) (MOD: 1kHz/±3kHz) Narrow: -115dBm (0.40µV) (MOD: 1kHz/±1.5kHz) SSGAF VTVM Oscilloscope Distortion meter 8Ω Dummyload Panel ANTSP/MIC connector Check 12dB SINADor more	5. Sensitivity check 1)Test Channel Channel: 1 Test Signaling Mode: Analog Signaling: 1 SSG output Wide: -115dBm (0.40µV) (MOD: 1kHz/±3kHz) Narrow: -115dBm (0.40µV) (MOD: 1kHz/±1.5kHz) SSGAF VTVM Oscilloscope Distortion meter 8Ω Dummyload ANTSP/MIC connector Check 12dB SINADor more	
4.5 Common Section	5	2. Receive Assist 1) Adj item: [Receive Assist] 2) Adj item: [Low], [Low'], [Center], [High'], [High] Press [Apply All] button to store the adjustment value. Panel [FPU] [<][>] [V] indicator on the PC window shows VCO lock voltage. Change the adjustment value to get VCO lock voltage within the limit of the specified voltage. Note:Confirm the VCO lock voltage approximately 3 seconds after the adjustment value is changed. [Low] : 1.4~1.6V [Low'], [Center], [High'] : 2.4~2.6V [High] : 2.9~3.1V Press [Apply All] button to store the adjustment value after all adjustment point have been adjusted.	2. Receive Assist 1) Adj item: [Receive Assist] 2) Adj item: [Low], [Low'], [Center], [High'], [High] Press [Apply All] button to store the adjustment value. [FPU] [<][>] [V] indicator on the PC window shows VCO lock voltage. Change the adjustment value to get VCO lock voltage within the limit of the specified voltage. Note:Confirm the VCO lock voltage approximately 3 seconds after the adjustment value is changed. [Low] : 1.4~1.6V [Low'], [Center], [High'] : 2.4~2.6V [High] : 2.9~3.1V Press [Apply All] button to store the adjustment value after all adjustment point have been adjusted.	
	6	3. Transmit Assist 1) Adj item: [Transmit Assist] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply All] button to store the adjustment value. Panel [FPU] [<][>] [V] indicator on the PC window shows VCO lock voltage. Change the adjustment value to get VCO lock voltage within the limit of the specified voltage. Note:Confirm the VCO lock voltage approximately 3 seconds after the adjustment value is changed. 2.4~2.6V Press [Apply All] button to store the adjustment value after all adjustment point have been adjusted.	3. Transmit Assist 1) Adj item: [Transmit Assist] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply All] button to store the adjustment value. [FPU] [<][>] [V] indicator on the PC window shows VCO lock voltage. Change the adjustment value to get VCO lock voltage within the limit of the specified voltage. Note:Confirm the VCO lock voltage approximately 3 seconds after the adjustment value is changed. 2.4~2.6V Press [Apply All] button to store the adjustment value after all adjustment point have been adjusted.	

Title	Line	No.RA037<Rev.001>	No.RA037<Rev.002>	Description
	7	4. Frequency 1) Adj item: [Frequency] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. 2) Adj item: [High] f. counter Panel ANT [FPU] [<][>] 435.100MHz 435.099347~435.100653MHz (±1.5ppm@435.1MHz)	4. Frequency 1) Adj item: [Frequency] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. 2) Adj item: [High] f. counter ANT [FPU] [<][>] 435.100MHz (K2,M2) 485.100MHz (K,M) 435.099565~435.100435MHz (K2,M2) 485.099515~485.100485MHz (K,M)	
4.6 Transmitter Section	4	1. Ramp Offset 1) Adj item: [Ramp Offset] 2) Adj item: [Low], [Low'], [Center], [High'], [High] Panel Panel [FPU] [<][>] Write the value as followings. 1 Press [Apply All] button to store the adjustment value after all adjustment points have been adjusted.	1. Ramp Offset 1) Adj item: [Ramp Offset] 2) Adj item: [Low], [Low'], [Center], [High'], [High] [FPU] [<][>] Write the value as followings. 1 Press [Apply All] button to store the adjustment value after all adjustment points have been adjusted.	
	5	2. High transmit power (Battery voltage :7.5V) 1) Adj item: [High Transmit Power] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply All] button to store the adjustment value. Power meter Ammeter Panel ANT Panel [FPU] [<][>] 4.0W ±0.2W 2.0A or less Press [Apply] button to store the adjustment value whenever each adjustment points have been adjusted.	2. High transmit power (Battery voltage :7.5V) 1) Adj item: [High Transmit Power] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply All] button to store the adjustment value. Power meter Ammeter ANT [FPU] [<][>] 4.0W ±0.2W 2.0A or less Press [Apply] button to store the adjustment value whenever each adjustment points have been adjusted.	

Title	Line	No.RA037<Rev.001>	No.RA037<Rev.002>	Description
	6	3. Low transmit power (Battery voltage :7.5V) 1) Adj item: [Low Transmit Power] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply All] button to store the adjustment value. Power meter Ammeter Panel ANT Panel [FPU] [<][>] 1.0W ±0.05W 1.0A or less Press [Apply] button to store the adjustment value whenever each adjustment points have been adjusted.	3. Low transmit power (Battery voltage :7.5V) 1) Adj item: [Low Transmit Power] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply All] button to store the adjustment value. Power meter Ammeter ANT [FPU] [<][>] 1.0W ±0.05W 1.0A or less Press [Apply] button to store the adjustment value whenever each adjustment points have been adjusted.	
	7	4. Balance 1 *1*2 1) Adj item: [Balance] Deviation meter LPF : 3kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply All] button to store the adjustment value. [2kHz Sine Wave Check box]: Check while transmitting change to 2kHz. Deviation meter Oscilloscope Panel ANT Panel [FPU] [<][>] The Deviation of 20Hz frequency is fixed. Change the 2kHz adjustment value to become the same deviation of 20Hz within the specified range. 2kHz Tone deviation is within ±0.2dB of 20Hz tone deviation. Press [Apply All] button to store the adjustment value after all adjustment points have been adjusted.	4. Balance 1 *1*2 1) Adj item: [Balance] Deviation meter LPF : 3kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply All] button to store the adjustment value. [2kHz Sine Wave Check box]: Check while transmitting change to 2kHz. Deviation meter Oscilloscope ANT [FPU] [<][>] The Deviation of 20Hz frequency is fixed. Change the 2kHz adjustment value to become the same deviation of 20Hz within the specified range. 2kHz Tone deviation is within ±3% of 20Hz tone deviation. Press [Apply All] button to store the adjustment value after all adjustment points have been adjusted.	

Title	Line	No.RA037<Rev.001>	No.RA037<Rev.002>	Description
	8	4. Balance 2 *1*2 1) Adj item: [Balance] Deviation meter LPF : 3kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply All] button to store the adjustment value. [Square Wave Check box]: Check while transmitting change to Square Wave. Deviation meter Oscilloscope Panel ANT Panel [FPU] [<][>] Make the demodulation wave into square wave. ILLUSTRATION(ra037_4002.png)	4. Balance 2 *1*2 1) Adj item: [Balance] Deviation meter LPF : 3kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply All] button to store the adjustment value. [Square Wave Check box]: Check while transmitting change to Square Wave. Deviation meter Oscilloscope ANT [FPU] [<][>] Make the demodulation wave into square wave. ILLUSTRATION(ra037_4002.png)	
	10	5. Maximum Deviation (DMR) *2 1) Adj item: [Maximum Deviation (DMR)] Deviation meter LPF : 3kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply All] button to store the adjustment value. Deviation meter Oscilloscope Panel ANT Panel [FPU] [<][>] 2749Hz 2695~2803Hz Press [Apply All] button to store the adjustment value after all adjustment points have been adjusted.	5. Maximum Deviation (DMR) *2 1) Adj item: [Maximum Deviation (DMR)] Deviation meter LPF : 3kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply All] button to store the adjustment value. Deviation meter Oscilloscope ANT [FPU] [<][>] 2749Hz 2695~2803Hz Press [Apply All] button to store the adjustment value after all adjustment points have been adjusted.	

Title	Line	No.RA037<Rev.001>	No.RA037<Rev.002>	Description
	11	6. Maximum deviation (Analog) *2	6. Maximum deviation (Analog) *2	
		1) Adj item: [Maximum Deviation (Analog Narrow)] Deviation meter LPF : 15kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply All] button to store the adjustment value.	1) Adj item: [Maximum Deviation (Analog Narrow)] Deviation meter LPF : 15kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply All] button to store the adjustment value.	
		Deviation meter Oscilloscope	Deviation meter Oscilloscope	
		Panel	ANT	
		ANT	[FPU] [<][>]	
		Panel	2100Hz Write the same adjustment value of "[Maximum Deviation (DMR)]" for each adjustment point. Transmit at each adjustment point and check that the Analog deviation is between 2050Hz and 2150Hz. Deviation meter LPF : 15kHz HPF : OFF	
		[FPU] [<][>]	2050~2150Hz Press [Apply All] button to store the adjustment value after all adjustment points have been adjusted.	
		2100Hz Write the same adjustment value of "[Maximum Deviation (DMR)]" for each adjustment point. Transmit at each adjustment point and check that the Analog deviation is between 2050Hz and 2150Hz. Deviation meter LPF : 15kHz HPF : OFF [Panel tuning mode] PTT: ON [PC test mode] PTT: Press [Transmit] button		
		2050~2150Hz Press [Apply All] button to store the adjustment value after all adjustment points have been adjusted.		

Title	Line	No.RA037<Rev.001>	No.RA037<Rev.002>	Description
	12	1) Adj item: [Maximum Deviation (Analog Wide)] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply All] button to store the adjustment value. Deviation meter Oscilloscope Panel ANT Panel [FPU] [<][>] 4200Hz Write the same adjustment value of "[Maximum Deviation (DMR)]" for each adjustment point. Transmit at each adjustment point and check that the Analog deviation is between4150Hz and 4250Hz. Deviation meter LPF : 15kHz HPF : OFF [Panel tuning mode] PTT: ON [PC test mode] PTT: Press [Transmit] button 4150~4250Hz Press [Apply All] button to store the adjustment value after all adjustment points have been adjusted.	1) Adj item: [Maximum Deviation (Analog Wide)] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply All] button to store the adjustment value. Deviation meter Oscilloscope ANT [FPU] [<][>] 4200Hz Write the same adjustment value of "[Maximum Deviation (DMR)]" for each adjustment point. Transmit at each adjustment point and check that the Analog deviation is between4150Hz and 4250Hz. Deviation meter LPF : 15kHz HPF : OFF 4150~4250Hz Press [Apply All] button to store the adjustment value after all adjustment points have been adjusted.	
	14	7. QT Deviation *3 1) Adj item: [QT Deviation (Analog Narrow)] Deviation meter LPF : 3kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope Panel ANT Panel [FPU] [<][>] 0.35kHz 0.35kHz ±0.05kHz	7. QT Deviation *3 1) Adj item: [QT Deviation (Analog Narrow)] Deviation meter LPF : 3kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope ANT [FPU] [<][>] 0.35kHz 0.35kHz ±0.05kHz	

Title	Line	No.RA037<Rev.001>	No.RA037<Rev.002>	Description
	15	1) Adj item: [QT Deviation(Analog Wide)] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope Panel ANT Panel [FPU] [<][>] 0.75kHz 0.75kHz±0.05kHz	1) Adj item: [QT Deviation(Analog Wide)] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope ANT [FPU] [<][>] 0.75kHz 0.75kHz±0.05kHz	
	16	8. DQT Deviation *3 1) Adj item: [DQT Deviation (Analog Narrow)] Deviation meter LPF : 3kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope Panel ANT Panel [FPU] [<][>] 0.35kHz 0.35kHz ±0.05kHz	8. DQT Deviation *3 1) Adj item: [DQT Deviation (Analog Narrow)] Deviation meter LPF : 3kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope ANT [FPU] [<][>] 0.35kHz 0.35kHz ±0.05kHz	
	17	1) Adj item: [DQT Deviation(Analog Wide)] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope Panel ANT Panel [FPU] [<][>] 0.75kHz 0.75kHz±0.05kHz	1) Adj item: [DQT Deviation(Analog Wide)] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope ANT [FPU] [<][>] 0.75kHz 0.75kHz±0.05kHz	

Title	Line	No.RA037<Rev.001>	No.RA037<Rev.002>	Description
	18	9. Single Tone Deviation *3 1) Adj item: [Single Tone Deviation (Analog Narrow)] Deviation meter LPF : 15kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope Panel ANT Panel [FPU] [<][>] 1.50kHz 1.50kHz±0.05kHz	9. Single Tone Deviation *3 1) Adj item: [Single Tone Deviation (Analog Narrow)] Deviation meter LPF : 15kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope ANT [FPU] [<][>] 1.50kHz 1.50kHz±0.05kHz	
	19	1) Adj item: [Single Tone Deviation (Analog Wide)] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope Panel ANT Panel [FPU] [<][>] 3.00kHz 3.00kHz±0.05kHz	1) Adj item: [Single Tone Deviation (Analog Wide)] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope ANT [FPU] [<][>] 3.00kHz 3.00kHz±0.05kHz	
	21	10.VOX 1 1) Adj item: [VOX 1] AG : 1kHz/45mV at MIC terminal Press [Apply] button to store the adjustment value. AG AF VM Panel Panel After apply signal from AG,press [Apply] button to store the adjustment value.	10.VOX 1 1) Adj item: [VOX 1] AG : 1kHz/45mV at MIC terminal Press [Apply] button to store the adjustment value. AG AF VM After apply signal from AG,press [Apply] button to store the adjustment value.	
	22	11.VOX 10 1) Adj item: [VOX 10] AG : 1kHz/3mV at MIC terminal Press [Apply] button to store the adjustment value. AG AF VM Panel Panel After apply signal from AG,press [Apply] button to store the adjustment value.	11.VOX 10 1) Adj item: [VOX 10] AG : 1kHz/3mV at MIC terminal Press [Apply] button to store the adjustment value. AG AF VM After apply signal from AG,press [Apply] button to store the adjustment value.	

Title	Line	No.RA037<Rev.001>	No.RA037<Rev.002>	Description
	23	12. Battery warning level writing 1) Adj item: [Battery Warning Level] PTT: Press [Transmit] button. Power meter DVM Panel ANT BATT terminal Press the PTT switch or [Transmit] button on the PC window. Apply 6.20V to battery terminal. Confirm that one pre-determined numeric in the range 1 to 4096 appears. Press [Apply] button to store the adjustment value.	12. Battery warning level writing 1) Adj item: [Battery Warning Level] PTT: Press [Transmit] button. Power meter DVM ANT BATT terminal Press the PTT switch or [Transmit] button on the PC window. Apply 6.20V to battery terminal. Confirm that one pre-determined numeric in the range 1 to 4096 appears. Press [Apply] button to store the adjustment value.	
	24	13. Battery warning level check 1) Test Channel Channel: 1 Test Signaling Mode: Analog Signaling: 1 BATT terminal voltage: 6.0V while transmitting Power meter DVM Panel ANT BATT terminal Check The transceiver can transmit with causing the LED to blink.	13. Battery warning level check 1) Test Channel Channel: 1 Test Signaling Mode: Analog Signaling: 1 BATT terminal voltage: 6.0V while transmitting Power meter DVM ANT BATT terminal Check The transceiver can transmit with causing the LED to blink.	
	25	14. DTMF Deviation 1) Adj item: [DTMF Deviation (Analog Narrow)] Deviation meter LPF : 15kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope Panel ANT Panel [FPU] [<][>] 1.25kHz 1.25kHz±0.05kHz	14. DTMF Deviation 1) Adj item: [DTMF Deviation (Analog Narrow)] Deviation meter LPF : 15kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope ANT [FPU] [<][>] 1.25kHz 1.25kHz±0.05kHz	
	26	1) Adj item: [DTMF Deviation (Analog Wide)] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope Panel ANT Panel [FPU] [<][>] 2.50kHz 2.50kHz±0.05kHz	1) Adj item: [DTMF Deviation (Analog Wide)] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope ANT [FPU] [<][>] 2.50kHz 2.50kHz±0.05kHz	

Title	Line	No.RA037<Rev.001>	No.RA037<Rev.002>	Description
	27	15. MSK Deviation 1) Adj item: [MSK Deviation (Analog Narrow)] Deviation meter LPF : 15kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope Panel ANT Panel [FPU] [<][>] 1.50kHz 1.50kHz±0.05kHz	15. MSK Deviation 1) Adj item: [MSK Deviation (Analog Narrow)] Deviation meter LPF : 15kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope ANT [FPU] [<][>] 1.50kHz 1.50kHz±0.05kHz	
	28	1) Adj item: [MSK Deviation (Analog Wide)] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope Panel ANT Panel [FPU] [<][>] 3.00kHz 3.00kHz±0.05kHz	1) Adj item: [MSK Deviation (Analog Wide)] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope ANT [FPU] [<][>] 3.00kHz 3.00kHz±0.05kHz	
4.7 Receiver Section	8	5.Open Squelch(DMR) 1) Adj item:[Open Squelch (DMR)] 2) Adj item:[Low], [Low'], [Center], [High'], [High] Reference SSG output: 12dB SINAD level@Analog Narrow -3dB (CW (without modulation)) SSGDistortion meter Oscilloscope ANT SP/MIC connector [FPU] [<][>] After input signal from SSG, press [Apply] button to store the adjustment value.	5.Open Squelch(DMR) 1) Adj item:[Open Squelch (DMR)] 2) Adj item:[Low], [Low'], [Center], [High'], [High] Reference SSG output: 12dB SINAD level@Analog Narrow -3dB (K2,M2) 12dB SINAD level@Analog Narrow (K,M) (CW (without modulation)) SSGDistortion meter Oscilloscope ANT SP/MIC connector [FPU] [<][>] After input signal from SSG, press [Apply] button to store the adjustment value.	
4.11 Radio check Section	4	1. Frequency check 1)Test Channel Channel: 1 Test Signaling Mode: Analog Signaling: 1 PTT: Press [Transmit] button. f. counter Panel ANT Check 435.099347~435.100653M Hz (±1.5ppm@435.1MHz)	1. Frequency check 1)Test Channel Channel: 1 Test Signaling Mode: Analog Signaling: 1 PTT: Press [Transmit] button. f. counter ANT Check 435.099347~435.100653M Hz (±1.5ppm@435.1MHz)	

Title	Line	No.RA037<Rev.001>	No.RA037<Rev.002>	Description
	5	2. High power check (Battery voltage: 7.5V) 1)Test Channel Channel: 1 Test Signaling Mode: Analog Signaling: 1 PTT: Press [Transmit] button. Power meter Ammeter Panel ANT Check 3.5W~4.5W 2.3A or less	2. High power check (Battery voltage: 7.5V) 1)Test Channel Channel: 1 Test Signaling Mode: Analog Signaling: 1 PTT: Press [Transmit] button. Power meter Ammeter ANT Check 3.5W~4.5W 2.3A or less	
	6	2)Test Channel Channel: 2 Test Signaling Mode: Analog Signaling: 1 PTT: Press [Transmit] button. Power meter Ammeter Panel ANT Check 3.5W~4.5W 2.3A or less	2)Test Channel Channel: 2 Test Signaling Mode: Analog Signaling: 1 PTT: Press [Transmit] button. Power meter Ammeter ANT Check 3.5W~4.5W 2.3A or less	
	7	3)Test Channel Channel: 3 Test Signaling Mode: Analog Signaling: 1 PTT: Press [Transmit] button. Power meter Ammeter Panel ANT Check 3.5W~4.5W 2.3A or less	3)Test Channel Channel: 3 Test Signaling Mode: Analog Signaling: 1 PTT: Press [Transmit] button. Power meter Ammeter ANT Check 3.5W~4.5W 2.3A or less	
	8	3. Low power check (Battery voltage: 7.5V) 1)Test Channel Channel: 1 Test Signaling Mode: Analog Signaling: 1 PTT: Press [Transmit] button. Power meter Ammeter Panel ANT Check 0.75W~1.25W1.2A or less	3. Low power check (Battery voltage: 7.5V) 1)Test Channel Channel: 1 Test Signaling Mode: Analog Signaling: 1 PTT: Press [Transmit] button. Power meter Ammeter ANT Check 0.75W~1.25W1.2A or less	
	9	2)Test Channel Channel: 2 Test Signaling Mode: Analog Signaling: 1 PTT: Press [Transmit] button. Power meter Ammeter Panel ANT Check 0.75W~1.25W1.2A or less	2)Test Channel Channel: 2 Test Signaling Mode: Analog Signaling: 1 PTT: Press [Transmit] button. Power meter Ammeter ANT Check 0.75W~1.25W1.2A or less	

Title	Line	No.RA037<Rev.001>	No.RA037<Rev.002>	Description
	10	3)Test Channel Channel: 3 Test Signaling Mode: Analog Signaling: 1 PTT: Press [Transmit] button. Power meter Ammeter Panel ANT Check 0.75W~1.25W1.2A or less	3)Test Channel Channel: 3 Test Signaling Mode: Analog Signaling: 1 PTT: Press [Transmit] button. Power meter Ammeter ANT Check 0.75W~1.25W1.2A or less	
	11	4. MIC sensitivity check 1)Test Channel Channel: 1 Test Signaling Mode: Analog Signaling: 1 AG: 1kHz PTT: Press [Transmit] button. Deviation meter OscilloscopeAGAF VM Panel ANTSP/MIC connector Adjust AG input to get a standard MOD. 15.0mV±7.0mV	4. MIC sensitivity check 1)Test Channel Channel: 1 Test Signaling Mode: Analog Signaling: 1 AG: 1kHz PTT: Press [Transmit] button. Deviation meter OscilloscopeAGAF VM ANTSP/MIC connector Adjust AG input to get a standard MOD. 15.0mV±7.0mV	
	12	5. Sensitivity check 1)Test Channel Channel: 1 Test Signaling Mode: Analog Signaling: 1 SSG output Wide 5k: -115dBm (0.40μV) (MOD: 1kHz/±3kHz) Wide 4k: -115dBm (0.40μV) (MOD: 1kHz/±2.4kHz) Narrow: -115dBm (0.40μV) (MOD: 1kHz/±1.5kHz) SSGAF VTVM Oscilloscope Distortion meter 8Ω Dummyload Panel ANTSP/MIC connector Check 12dB SINADor more	5. Sensitivity check 1)Test Channel Channel: 1 Test Signaling Mode: Analog Signaling: 1 SSG output Wide 5k: -115dBm (0.40μV) (MOD: 1kHz/±3kHz) Wide 4k: -115dBm (0.40μV) (MOD: 1kHz/±2.4kHz) Narrow: -115dBm (0.40μV) (MOD: 1kHz/±1.5kHz) SSGAF VTVM Oscilloscope Distortion meter 8Ω Dummyload ANTSP/MIC connector Check 12dB SINADor more	

Title	Line	No.RA037<Rev.001>	No.RA037<Rev.002>	Description
4.12 Common Section	5	2. Receive Assist 1) Adj item: [Receive Assist] 2) Adj item: [Low], [Low'], [Center], [High'], [High] Press [Apply All] button to store the adjustment value. Panel [FPU] [<][>] [V] indicator on the PC window shows VCO lock voltage. Change the adjustment value to get VCO lock voltage within the limit of the specified voltage. Note:Confirm the VCO lock voltage approximately 3 seconds after the adjustment value is changed. [Low] : 1.4~1.6V [Low'], [Center], [High'] : 2.4~2.6V [High] : 2.9~3.1V Press [Apply All] button to store the adjustment value after all adjustment point have been adjusted.	2. Receive Assist 1) Adj item: [Receive Assist] 2) Adj item: [Low], [Low'], [Center], [High'], [High] Press [Apply All] button to store the adjustment value. [FPU] [<][>] [V] indicator on the PC window shows VCO lock voltage. Change the adjustment value to get VCO lock voltage within the limit of the specified voltage. Note:Confirm the VCO lock voltage approximately 3 seconds after the adjustment value is changed. [Low] : 1.4~1.6V [Low'], [Center], [High'] : 2.4~2.6V [High] : 2.9~3.1V Press [Apply All] button to store the adjustment value after all adjustment point have been adjusted.	
	6	3. Transmit Assist 1) Adj item: [Transmit Assist] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply All] button to store the adjustment value. Panel [FPU] [<][>] [V] indicator on the PC window shows VCO lock voltage. Change the adjustment value to get VCO lock voltage within the limit of the specified voltage. Note:Confirm the VCO lock voltage approximately 3 seconds after the adjustment value is changed. 2.4~2.6V Press [Apply All] button to store the adjustment value after all adjustment point have been adjusted.	3. Transmit Assist 1) Adj item: [Transmit Assist] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply All] button to store the adjustment value. [FPU] [<][>] [V] indicator on the PC window shows VCO lock voltage. Change the adjustment value to get VCO lock voltage within the limit of the specified voltage. Note:Confirm the VCO lock voltage approximately 3 seconds after the adjustment value is changed. 2.4~2.6V Press [Apply All] button to store the adjustment value after all adjustment point have been adjusted.	
	7	4. Frequency 1) Adj item: [Frequency] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. 2) Adj item: [High] f. counter Panel ANT [FPU] [<][>] 435.100MHz 435.099347~435.100653MHz (±1.5ppm@435.1MHz)	4. Frequency 1) Adj item: [Frequency] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. 2) Adj item: [High] f. counter ANT [FPU] [<][>] 435.100MHz 435.099347~435.100653MHz (±1.5ppm@435.1MHz)	

Title	Line	No.RA037<Rev.001>	No.RA037<Rev.002>	Description
4.13 Transmitter Section	4	1. Ramp Offset 1) Adj item: [Ramp Offset] 2) Adj item: [Low], [Low'], [Center], [High'], [High] Panel Panel [FPU] [<][>] Write the value as followings. 1 Press [Apply All] button to store the adjustment value after all adjustment points have been adjusted.	1. Ramp Offset 1) Adj item: [Ramp Offset] 2) Adj item: [Low], [Low'], [Center], [High'], [High] [FPU] [<][>] Write the value as followings. 1 Press [Apply All] button to store the adjustment value after all adjustment points have been adjusted.	
	5	2. High transmit power (Battery voltage :7.5V) 1) Adj item: [High Transmit Power] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply All] button to store the adjustment value. Power meter Ammeter Panel ANT Panel [FPU] [<][>] 4.0W ±0.2W 2.0A or less Press [Apply] button to store the adjustment value whenever each adjustment points have been adjusted.	2. High transmit power (Battery voltage :7.5V) 1) Adj item: [High Transmit Power] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply All] button to store the adjustment value. Power meter Ammeter ANT [FPU] [<][>] 4.0W ±0.2W 2.0A or less Press [Apply] button to store the adjustment value whenever each adjustment points have been adjusted.	
	6	3. Low transmit power (Battery voltage :7.5V) 1) Adj item: [Low Transmit Power] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply All] button to store the adjustment value. Power meter Ammeter Panel ANT Panel [FPU] [<][>] 1.0W ±0.05W 1.0A or less Press [Apply] button to store the adjustment value whenever each adjustment points have been adjusted.	3. Low transmit power (Battery voltage :7.5V) 1) Adj item: [Low Transmit Power] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply All] button to store the adjustment value. Power meter Ammeter ANT [FPU] [<][>] 1.0W ±0.05W 1.0A or less Press [Apply] button to store the adjustment value whenever each adjustment points have been adjusted.	

Title	Line	No.RA037<Rev.001>	No.RA037<Rev.002>	Description
	7	4. Balance 1 *1*2	4. Balance 1 *1*2	
		1) Adj item: [Balance] Deviation meter LPF : 3kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply All] button to store the adjustment value. [2kHz Sine Wave Check box]: Check while transmitting change to 2kHz.	1) Adj item: [Balance] Deviation meter LPF : 3kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply All] button to store the adjustment value. [2kHz Sine Wave Check box]: Check while transmitting change to 2kHz.	
		Deviation meter Oscilloscope	Deviation meter Oscilloscope	
		Panel	ANT	
		ANT	[FPU] [<][>]	
		Panel	The Deviation of 20Hz frequency is fixed. Change the 2kHz adjustment value to become the same deviation of 20Hz within the specified range.	
		[FPU] [<][>]	2kHz Tone deviation is within ±3% of 20Hz tone deviation. Press [Apply All] button to store the adjustment value after all adjustment points have been adjusted.	
		The Deviation of 20Hz frequency is fixed. Change the 2kHz adjustment value to become the same deviation of 20Hz within the specified range.		
		2kHz Tone deviation is within ±0.2dB of 20Hz tone deviation. Press [Apply All] button to store the adjustment value after all adjustment points have been adjusted.		
	8	4. Balance 2 *1*2	4. Balance 2 *1*2	
		1) Adj item: [Balance] Deviation meter LPF : 3kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply All] button to store the adjustment value. [Square Wave Check box]: Check while transmitting change to Square Wave.	1) Adj item: [Balance] Deviation meter LPF : 3kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply All] button to store the adjustment value. [Square Wave Check box]: Check while transmitting change to Square Wave.	
		Deviation meter Oscilloscope	Deviation meter Oscilloscope	
		Panel	ANT	
		ANT	[FPU] [<][>]	
		Panel	Make the demodulation wave into square wave.	
		[FPU] [<][>]	ILLUSTRATION(ra037_4002.png)	
		Make the demodulation wave into square wave.		
		ILLUSTRATION(ra037_4002.png)		

Title	Line	No.RA037<Rev.001>	No.RA037<Rev.002>	Description
	10	5. Maximum Deviation (DMR) *2	5. Maximum Deviation (DMR) *2	
		1) Adj item: [Maximum Deviation (DMR)] Deviation meter LPF : 3kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply All] button to store the adjustment value.	1) Adj item: [Maximum Deviation (DMR)] Deviation meter LPF : 3kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply All] button to store the adjustment value.	
		Deviation meter Oscilloscope	Deviation meter Oscilloscope	
		Panel	ANT	
		ANT	[FPU] [<][>]	
		Panel	2749Hz	
		[FPU] [<][>]	2695~2803Hz Press [Apply All] button to store the adjustment value after all adjustment points have been adjusted.	
		2749Hz		
		2695~2803Hz Press [Apply All] button to store the adjustment value after all adjustment points have been adjusted.		
	11	6. Maximum deviation (Analog) *2	6. Maximum deviation (Analog) *2	
		1) Adj item: [Maximum Deviation (Analog Narrow)] Deviation meter LPF : 15kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply All] button to store the adjustment value.	1) Adj item: [Maximum Deviation (Analog Narrow)] Deviation meter LPF : 15kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply All] button to store the adjustment value.	
		Deviation meter Oscilloscope	Deviation meter Oscilloscope	
		Panel	ANT	
		ANT	[FPU] [<][>]	
		Panel	2100Hz Write the same adjustment value of "[Maximum Deviation (DMR)]" for each adjustment point. Transmit at each adjustment point and check that the Analog deviation is between 2050Hz and 2150Hz. Deviation meter LPF : 15kHz HPF : OFF	
		[FPU] [<][>]	2050~2150Hz Press [Apply All] button to store the adjustment value after all adjustment points have been adjusted.	
		2100Hz Write the same adjustment value of "[Maximum Deviation (DMR)]" for each adjustment point. Transmit at each adjustment point and check that the Analog deviation is between 2050Hz and 2150Hz. Deviation meter LPF : 15kHz HPF : OFF [Panel tuning mode] PTT: ON [PC test mode] PTT: Press [Transmit] button		
		2050~2150Hz Press [Apply All] button to store the adjustment value after all adjustment points have been adjusted.		

Title	Line	No.RA037<Rev.001>	No.RA037<Rev.002>	Description
	12	1)Adj item: [Maximum Deviation (Analog Wide 4k)] 2)Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply All] button to store the adjustment value.	1)Adj item: [Maximum Deviation (Analog Wide 4k)] 2)Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply All] button to store the adjustment value.	
		Deviation meter Oscilloscope	Deviation meter Oscilloscope	
		Panel	ANT	
		ANT	[FPU] [<][>]	
		Panel	3360Hz Write the same adjustment value of "[Maximum Deviation (DMR)]" for each adjustment point. Transmit at each adjustment point and check that the Analog deviation is between 3310Hz and 3410Hz. Deviation meter LPF : 15kHz HPF : OFF	
		[FPU] [<][>]	3310~3410Hz Press [Apply All] button to store the adjustment value after all adjustment points have been adjusted.	
		3360Hz Write the same adjustment value of "[Maximum Deviation (DMR)]" for each adjustment point. Transmit at each adjustment point and check that the Analog deviation is between 3310Hz and 3410Hz. Deviation meter LPF : 15kHz HPF : OFF [Panel tuning mode] PTT: ON [PC test mode] PTT: Press [Transmit] button		
		3310~3410Hz Press [Apply All] button to store the adjustment value after all adjustment points have been adjusted.		

Title	Line	No.RA037<Rev.001>	No.RA037<Rev.002>	Description
	13	1) Adj item: [Maximum Deviation (Analog Wide 5k)] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply All] button to store the adjustment value.	1) Adj item: [Maximum Deviation (Analog Wide 5k)] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply All] button to store the adjustment value.	
		Deviation meter Oscilloscope	Deviation meter Oscilloscope	
		Panel	ANT	
		ANT	[FPU] [<][>]	
		Panel	4200Hz Write the same adjustment value of "[Maximum Deviation (DMR)]" for each adjustment point. Transmit at each adjustment point and check that the Analog deviation is between4150Hz and 4250Hz. Deviation meter LPF : 15kHz HPF : OFF	
		[FPU] [<][>]	4150~4250Hz Press [Apply All] button to store the adjustment value after all adjustment points have been adjusted.	
		4200Hz Write the same adjustment value of "[Maximum Deviation (DMR)]" for each adjustment point. Transmit at each adjustment point and check that the Analog deviation is between4150Hz and 4250Hz. Deviation meter LPF : 15kHz HPF : OFF [Panel tuning mode] PTT: ON [PC test mode] PTT: Press [Transmit] button		
		4150~4250Hz Press [Apply All] button to store the adjustment value after all adjustment points have been adjusted.		
	15	7. QT Deviation *3	7. QT Deviation *3	
		1) Adj item: [QT Deviation (Analog Narrow)] Deviation meter LPF : 3kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value.	1) Adj item: [QT Deviation (Analog Narrow)] Deviation meter LPF : 3kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value.	
		Deviation meter Oscilloscope	Deviation meter Oscilloscope	
		Panel	ANT	
		ANT	[FPU] [<][>]	
		Panel	0.35kHz	
		[FPU] [<][>]	0.35kHz ±0.05kHz	
		0.35kHz		
		0.35kHz ±0.05kHz		

Title	Line	No.RA037<Rev.001>	No.RA037<Rev.002>	Description
	16	1) Adj item: [QT Deviation (Analog Wide 4k)] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope Panel ANT Panel [FPU] [<][>] 0.60kHz 0.60kHz±0.05kHz	1) Adj item: [QT Deviation (Analog Wide 4k)] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope ANT [FPU] [<][>] 0.60kHz 0.60kHz±0.05kHz	
	17	1) Adj item: [QT Deviation(Analog Wide 5k)] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope Panel ANT Panel [FPU] [<][>] 0.75kHz 0.75kHz±0.05kHz	1) Adj item: [QT Deviation(Analog Wide 5k)] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope ANT [FPU] [<][>] 0.75kHz 0.75kHz±0.05kHz	
	18	8. DQT Deviation *3 1) Adj item: [DQT Deviation (Analog Narrow)] Deviation meter LPF : 3kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope Panel ANT Panel [FPU] [<][>] 0.35kHz 0.35kHz ±0.05kHz	8. DQT Deviation *3 1) Adj item: [DQT Deviation (Analog Narrow)] Deviation meter LPF : 3kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope ANT [FPU] [<][>] 0.35kHz 0.35kHz ±0.05kHz	
	19	1) Adj item: [DQT Deviation (Analog Wide 4k)] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope Panel ANT Panel [FPU] [<][>] 0.60kHz 0.60kHz±0.05kHz	1) Adj item: [DQT Deviation (Analog Wide 4k)] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope ANT [FPU] [<][>] 0.60kHz 0.60kHz±0.05kHz	

Title	Line	No.RA037<Rev.001>	No.RA037<Rev.002>	Description
	20	1) Adj item: [DQT Deviation(Analog Wide 5k)] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope Panel ANT Panel [FPU] [<][>] 0.75kHz 0.75kHz±0.05kHz	1) Adj item: [DQT Deviation(Analog Wide 5k)] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope ANT [FPU] [<][>] 0.75kHz 0.75kHz±0.05kHz	
	21	9. Single Tone Deviation *3 1) Adj item: [Single Tone Deviation (Analog Narrow)] Deviation meter LPF : 15kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope Panel ANT Panel [FPU] [<][>] 1.50kHz 1.50kHz±0.05kHz	9. Single Tone Deviation *3 1) Adj item: [Single Tone Deviation (Analog Narrow)] Deviation meter LPF : 15kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope ANT [FPU] [<][>] 1.50kHz 1.50kHz±0.05kHz	
	22	1) Adj item: [Single Tone Deviation (Analog Wide 4k)] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope Panel ANT Panel [FPU] [<][>] 2.40kHz 2.40kHz±0.05kHz	1) Adj item: [Single Tone Deviation (Analog Wide 4k)] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope ANT [FPU] [<][>] 2.40kHz 2.40kHz±0.05kHz	
	23	1) Adj item: [Single Tone Deviation (Analog Wide 5k)] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope Panel ANT Panel [FPU] [<][>] 3.00kHz 3.00kHz±0.05kHz	1) Adj item: [Single Tone Deviation (Analog Wide 5k)] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope ANT [FPU] [<][>] 3.00kHz 3.00kHz±0.05kHz	

Title	Line	No.RA037<Rev.001>	No.RA037<Rev.002>	Description
	25	10.VOX 1 1) Adj item: [VOX 1] AG : 1kHz/45mV at MIC terminal Press [Apply] button to store the adjustment value. AG AF VM Panel Panel After apply signal from AG,press [Apply] button to store the adjustment value.	10.VOX 1 1) Adj item: [VOX 1] AG : 1kHz/45mV at MIC terminal Press [Apply] button to store the adjustment value. AG AF VM After apply signal from AG,press [Apply] button to store the adjustment value.	
	26	11.VOX 10 1) Adj item: [VOX 10] AG : 1kHz/3mV at MIC terminal Press [Apply] button to store the adjustment value. AG AF VM Panel Panel After apply signal from AG,press [Apply] button to store the adjustment value.	11.VOX 10 1) Adj item: [VOX 10] AG : 1kHz/3mV at MIC terminal Press [Apply] button to store the adjustment value. AG AF VM After apply signal from AG,press [Apply] button to store the adjustment value.	
	27	12. Battery warning level writing 1) Adj item: [Battery Warning Level] PTT: Press [Transmit] button. Power meter DVM Panel ANT BATT terminal Press the PTT switch or [Transmit] button on the PC window. Apply 6.20V to battery terminal. Confirm that one pre-determined numeric in the range 1 to 4096 appears. Press [Apply] button to store the adjustment value.	12. Battery warning level writing 1) Adj item: [Battery Warning Level] PTT: Press [Transmit] button. Power meter DVM ANT BATT terminal Press the PTT switch or [Transmit] button on the PC window. Apply 6.20V to battery terminal. Confirm that one pre-determined numeric in the range 1 to 4096 appears. Press [Apply] button to store the adjustment value.	
	28	13. Battery warning level check 1) Test Channel Channel: 1 Test Signaling Mode: Analog Signaling: 1 BATT terminal voltage: 6.0V while transmitting Power meter DVM Panel ANT BATT terminal Check The transceiver can transmit with causing the LED to blink.	13. Battery warning level check 1) Test Channel Channel: 1 Test Signaling Mode: Analog Signaling: 1 BATT terminal voltage: 6.0V while transmitting Power meter DVM ANT BATT terminal Check The transceiver can transmit with causing the LED to blink.	

Title	Line	No.RA037<Rev.001>	No.RA037<Rev.002>	Description
	29	14. DTMF Deviation 1) Adj item: [DTMF Deviation (Analog Narrow)] Deviation meter LPF : 15kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope Panel ANT Panel [FPU] [<][>] 1.25kHz 1.25kHz±0.05kHz	14. DTMF Deviation 1) Adj item: [DTMF Deviation (Analog Narrow)] Deviation meter LPF : 15kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope ANT [FPU] [<][>] 1.25kHz 1.25kHz±0.05kHz	
	30	1) Adj item: [DTMF Deviation (Analog Wide 4k)] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope Panel ANT Panel [FPU] [<][>] 2.00kHz 2.00kHz±0.05kHz	1) Adj item: [DTMF Deviation (Analog Wide 4k)] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope ANT [FPU] [<][>] 2.00kHz 2.00kHz±0.05kHz	
	31	1) Adj item: [DTMF Deviation (Analog Wide 5k)] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope Panel ANT Panel [FPU] [<][>] 2.50kHz 2.50kHz±0.05kHz	1) Adj item: [DTMF Deviation (Analog Wide 5k)] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope ANT [FPU] [<][>] 2.50kHz 2.50kHz±0.05kHz	

Title	Line	No.RA037<Rev.001>	No.RA037<Rev.002>	Description
	32	15. MSK Deviation 1) Adj item: [MSK Deviation (Analog Narrow)] Deviation meter LPF : 15kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope Panel ANT Panel [FPU] [<][>] 1.50kHz 1.50kHz±0.05kHz	15. MSK Deviation 1) Adj item: [MSK Deviation (Analog Narrow)] Deviation meter LPF : 15kHz HPF : OFF 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope ANT [FPU] [<][>] 1.50kHz 1.50kHz±0.05kHz	
	33	1) Adj item: [MSK Deviation (Analog Wide 4k)] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope Panel ANT Panel [FPU] [<][>] 2.40kHz 2.40kHz±0.05kHz	1) Adj item: [MSK Deviation (Analog Wide 4k)] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope ANT [FPU] [<][>] 2.40kHz 2.40kHz±0.05kHz	
	34	1) Adj item: [MSK Deviation (Analog Wide 5k)] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope Panel ANT Panel [FPU] [<][>] 3.00kHz 3.00kHz±0.05kHz	1) Adj item: [MSK Deviation (Analog Wide 5k)] 2) Adj item: [Low], [Low'], [Center], [High'], [High] PTT: Press [Transmit] button. Press [Apply] button to store the adjustment value. Deviation meter Oscilloscope ANT [FPU] [<][>] 3.00kHz 3.00kHz±0.05kHz	

SECTION 5 TROUBLESHOOTING

Title	Line	No.RA037<Rev.001>	No.RA037<Rev.002>	Description
5.1 Replacing Main Unit	9	-	TK-D340 K XC1-1170-21 XCA-002M-01S (Main Unit Number: XC1-1170-22)	
	10	-	TK-D340U K XC1-1170-21 XCA-002M-01S (Main Unit Number: XC1-1170-22)	

Title	Line	No.RA037<Rev.001>	No.RA037<Rev.002>	Description
	11	-	TK-D340 M XC1-1170-21 XCA-002M-01S (Main Unit Number: XC1-1170-22)	
	16	Main Unit (XC1-1172-71) 1	Main Unit (XC1-117) 1	
	23	FUU Data(PC programing mode) XC1-117 (TK-D340) E type data.	FUU Data(PC programing mode) XC1-117 (TK-D340) E, M type data.	
	24	KENWOOD ESN Model name: TK-D340 Type: E The same number as a the Model Name Plate label is written.	KENWOOD ESN Model name: TK-D340 Type: E, M The same number as a the Model Name Plate label is written.	

STANDARD SCHEMATIC DIAGRAMS

Schematic Diagram

Diagram Name	No.RA037<Rev.001>	No.RA037<Rev.002>	Description
Menu	MAIN UNIT (XC1-1172-70)	MAIN UNIT	

Printed Circuit Board

Diagram Name	No.RA037<Rev.001>	No.RA037<Rev.002>	Description
Menu	MAIN UNIT (XC1-1172-70)	MAIN UNIT	

Exploded View

Diagram Name	No.RA037<Rev.001>	No.RA037<Rev.002>	Description
Menu	Packing materials and accessories (TK-D340_K2,TK-D340_E,TK-D340U_K2)	Packing materials and accessories (TK-D340_K,TK-D340_K2,TK-D340_E,TK-D340U_K,TK-D340U_K2)	
Menu	Packing materials and accessories (TK-D340_M2,TK-D340_E2)	Packing materials and accessories (TK-D340_M,TK-D340_M2,TK-D340_E2)	

PARTS LIST

MODEL No. LIST

Model No.	No.RA037<Rev.002>
TK-D340(U)_K	07
TK-D340(U)_K2	08
TK-D340_E	05
TK-D340_E2	06
TK-D340_K	01
TK-D340_K2	02
TK-D340_M	03
TK-D340_M2	04

General assembly [M1MM]

⚠	Symbol		or	Part No. <Rev.001>	Part No. <Rev.002>	Part Name	Description	Qty	Models
	M1MM	-		----------	XCA-002M-01S	MAIN UNIT	(Addition)	1	01,03,07

MAIN UNIT XC1-1170-21(TK-D340_K,TK-D340_M,TK-D340U_K), XC1-1172-70(TK-D340_K2,TK-D340_M2,TK-D340_E,TK-D340_E2,TK-D340U_K2) [01]

⚠	Symbol		or	Part No. <Rev.001>	Part No. <Rev.002>	Part Name	Description	Qty	Models
	01	Q1		SSM3J05FU-F	RE1C001ZP	FET		1	01,02,03,04,05,06,07,08
	01	Q292		----------	RE1C001UN	FET	(Addition)	1	01,03,07
	01	Q297		----------	EM6M2	FET	(Addition)	1	01,03,07
	01	D4		----------	1SV325FT	VARI CAP DIODE	(Addition)	1	01,03,07
	01	D5		----------	1SV325FT	VARI CAP DIODE	(Addition)	1	01,03,07
	01	D13		----------	1SV325FT	VARI CAP DIODE	(Addition)	1	01,03,07

⚠	Symbol		or	Part No. <Rev.001>	Part No. <Rev.002>	Part Name	Description	Qty	Models
	01	C25		----------	CC730DK1H473J	C CAPACITOR	(Addition)	1	01,03,07
	01	C26		----------	CS77MA1VR47M	TA E CAPACITOR	(Addition)	1	01,03,07
	01	C29		----------	CC730DM1H103J	C CAPACITOR	(Addition)	1	01,03,07
	01	C57		----------	CC73HCH1H040B	C CAPACITOR	(Addition)	1	01,03,07
	01	C79		----------	CC73HCH1H050B	C CAPACITOR	(Addition)	1	01,03,07
	01	C108		----------	CC73HCH1H151J	C CAPACITOR	(Addition)	1	01,03,07
	01	C109		----------	CC73HCH1H680J	C CAPACITOR	(Addition)	1	01,03,07
	01	C207		----------	CC73HCH1H100B	C CAPACITOR	(Addition)	1	01,03,07
	01	C208		----------	CC73HCH1H101J	C CAPACITOR	(Addition)	1	01,03,07
	01	C210		----------	CK73HB1A473K	C CAPACITOR	(Addition)	1	01,03,07
	01	C216		----------	CC73HCH1H070B	C CAPACITOR	(Addition)	1	01,03,07
	01	C241		----------	CC73GCH1H180G	C CAPACITOR	(Addition)	1	01,03,07
	01	C242		----------	CC73GCH1H120G	C CAPACITOR	(Addition)	1	01,03,07
	01	C243		----------	CC73GCH1H150G	C CAPACITOR	(Addition)	1	01,03,07
	01	C248		----------	CC73GCH1H100B	C CAPACITOR	(Addition)	1	01,03,07
	01	C267		----------	CC73GCH1H080B	C CAPACITOR	(Addition)	1	01,03,07
	01	C270		----------	CC73HCH1H060B	C CAPACITOR	(Addition)	1	01,03,07
	01	C271		----------	CC73GCH1H040B	C CAPACITOR	(Addition)	1	01,03,07
	01	C274		----------	CC73GCH1H3R5B	C CAPACITOR	(Addition)	1	01,03,07
	01	C276		----------	CC73GCH1H0R3B	C CAPACITOR	(Addition)	1	01,03,07
	01	C279		----------	CC73GCH1H010B	C CAPACITOR	(Addition)	1	01,03,07
	01	C311		----------	CK73HB0J225K	C CAPACITOR	(Addition)	1	01,03,07
	01	C412		----------	CC73HCH1H680G	C CAPACITOR	(Addition)	1	01,03,07
	01	C434		----------	CC73HCH1H010B	C CAPACITOR	(Addition)	1	01,03,07
	01	C436		----------	CC73HCH1H2R5B	C CAPACITOR	(Addition)	1	01,03,07
	01	C438		----------	CC73HCH1H050B	C CAPACITOR	(Addition)	1	01,03,07
	01	C439		----------	CC73HCH1H020B	C CAPACITOR	(Addition)	1	01,03,07
	01	C440		----------	CC73HCH1H1R5B	C CAPACITOR	(Addition)	1	01,03,07
	01	C448		----------	CC73HCH1H010B	C CAPACITOR	(Addition)	1	01,03,07
	01	C449		----------	CC73HCH1H120G	C CAPACITOR	(Addition)	1	01,03,07
	01	C452		----------	CC73HCH1HR75B	C CAPACITOR	(Addition)	1	01,03,07
	01	C454		----------	CC73HCH1H1R5B	C CAPACITOR	(Addition)	1	01,03,07
	01	C455		----------	CC73HCH1H120G	C CAPACITOR	(Addition)	1	01,03,07
	01	C458		----------	CC73HCH1HR75B	C CAPACITOR	(Addition)	1	01,03,07
	01	C459		----------	CC73HCH1H120G	C CAPACITOR	(Addition)	1	01,03,07
	01	C460		----------	CC73HCH1H1R5B	C CAPACITOR	(Addition)	1	01,03,07
	01	C461		----------	CC73HCH1H100B	C CAPACITOR	(Addition)	1	01,03,07
	01	C470		----------	CC73HCH1H0R5B	C CAPACITOR	(Addition)	1	01,03,07
	01	C471		----------	CC73HCH1H120G	C CAPACITOR	(Addition)	1	01,03,07
	01	C473		----------	CC73HCH1H040B	C CAPACITOR	(Addition)	1	01,03,07
	01	C474		----------	CC73HCH1H020B	C CAPACITOR	(Addition)	1	01,03,07
	01	C475		----------	CC73HCH1H120G	C CAPACITOR	(Addition)	1	01,03,07
	01	C476		----------	CC73HCH1H0R5B	C CAPACITOR	(Addition)	1	01,03,07
	01	C478		----------	CC73HCH1H020B	C CAPACITOR	(Addition)	1	01,03,07
	01	C480		----------	CC73HCH1H070B	C CAPACITOR	(Addition)	1	01,03,07
	01	C481		----------	CC73HCH1H120G	C CAPACITOR	(Addition)	1	01,03,07
	01	C482		----------	CC73HCH1H080B	C CAPACITOR	(Addition)	1	01,03,07
	01	C622		----------	CK73HB1H271K	C CAPACITOR	(Addition)	1	01,02,03,04,05,06,07,08
	01	C634		----------	CK73HBB1H471K	C CAPACITOR	(Addition)	1	01,02,03,04,05,06,07,08
	01	C635		----------	CK73HBB1H471K	C CAPACITOR	(Addition)	1	01,02,03,04,05,06,07,08
	01	C636		----------	CK73HBB1H471K	C CAPACITOR	(Addition)	1	01,02,03,04,05,06,07,08
	01	C637		----------	CK73HBB1H471K	C CAPACITOR	(Addition)	1	01,02,03,04,05,06,07,08
	01	C638		----------	CK73HBB1H271K	C CAPACITOR	(Addition)	1	01,02,03,04,05,06,07,08
	01	C800		----------	CC73HCH1H470J	C CAPACITOR	(Addition)	1	01,03,07
	01	C840		----------	CK73HBB1H102K	C CAPACITOR	(Addition)	1	01,03,07
	01	C841		----------	CK73HB1H331K	C CAPACITOR	(Addition)	1	01,03,07
	01	C842		----------	CK73HB1H331K	C CAPACITOR	(Addition)	1	01,03,07
	01	R18		----------	RK73HB1J102J	MG RESISTOR	(Addition)	1	01,03,07
	01	R19		----------	RK73HB1J222J	MG RESISTOR	(Addition)	1	01,03,07
	01	R29		----------	RK73HB1J154J	MG RESISTOR	(Addition)	1	01,03,07
	01	R31		----------	RK73HB1J333J	MG RESISTOR	(Addition)	1	01,03,07
	01	R45		----------	RK73HB1J221J	MG RESISTOR	(Addition)	1	01,03,07
	01	R55		----------	RK73HB1J223J	MG RESISTOR	(Addition)	1	01,03,07
	01	R213		----------	RK73HB1J330J	MG RESISTOR	(Addition)	1	01,03,07
	01	R225		----------	RK73HB1J562J	MG RESISTOR	(Addition)	1	01,03,07
	01	R227		----------	RK73HB1J122J	MG RESISTOR	(Addition)	1	01,03,07
	01	R232		----------	RK73HB1J122J	MG RESISTOR	(Addition)	1	01,03,07
	01	R239		----------	RK73HB1J562J	MG RESISTOR	(Addition)	1	01,03,07

⚠	Symbol		or	Part No. <Rev.001>	Part No. <Rev.002>	Part Name	Description	Qty	Models
	01	R255		----------	RK73FB2B000J	MG RESISTOR	(Addition)	1	01,03,07
	01	R297		----------	RK73HB1J000J	MG RESISTOR	(Addition)	1	01,03,07
	01	R298		----------	RK73HB1J000J	MG RESISTOR	(Addition)	1	01,03,07
	01	R299		----------	RK73HB1J000J	MG RESISTOR	(Addition)	1	01,03,07
	01	R314		----------	RK73HB1J272J	MG RESISTOR	(Addition)	1	01,03,07
	01	R321		----------	RK73HB1J104J	MG RESISTOR	(Addition)	1	01,03,07
	01	R403		----------	RK73HB1J182J	MG RESISTOR	(Addition)	1	01,03,07
	01	R405		----------	RK73HB1J274J	MG RESISTOR	(Addition)	1	01,03,07
	01	R434		----------	RK73HB1J330J	MG RESISTOR	(Addition)	1	01,03,07
	01	R446		----------	RK73GB2A000J	MG RESISTOR	(Addition)	1	01,03,07
	01	R776		----------	RK73HB1J000J	MG RESISTOR	(Addition)	1	01,03,07
	01	L15		----------	L41-1278-08	CHIP INDUCTOR	(Addition)	1	01,03,07
	01	L16		----------	L41-1878-08	CHIP INDUCTOR	(Addition)	1	01,03,07
	01	L25		----------	LK73H0AM22NJ	M.CHIP INDUCTOR	(Addition)	1	01,03,07
	01	L204		----------	LK73H0AM12NJ	M.CHIP INDUCTOR	(Addition)	1	01,03,07
	01	L205		----------	LK73H0AM18NJ	M.CHIP INDUCTOR	(Addition)	1	01,03,07
	01	L211		----------	L41-1263-53	CHIP INDUCTOR	(Addition)	1	01,03,07
	01	L408		----------	L41-2775-53	CHIP INDUCTOR	(Addition)	1	01,03,07
	01	L417		----------	LR79G0GK33NG	CHIP INDUCTOR	(Addition)	1	01,03,07
	01	L421		----------	LK73H0AM5N6S	M.CHIP INDUCTOR	(Addition)	1	01,03,07

Packing and accessories [M2MM]

⚠	Symbol		or	Part No. <Rev.001>	Part No. <Rev.002>	Part Name	Description	Qty	Models
	M2MM	9		----------	H52-2589-11	ITEM CARTON	(Addition)	1	01,07

Packing and accessories [M3MM]

⚠	Symbol		or	Part No. <Rev.001>	Part No. <Rev.002>	Part Name	Description	Qty	Models
	M3MM	9		----------	H52-2588-11	ITEM CARTON	(Addition)	1	03

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Communications Systems Business Unit -

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