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SPECIFICATIONS

RF Carrier Frequency Range

800–820 MHz

Working Range

152.4 m (500 ft), minimum, under typical conditions; 487.6 m (1600 ft) line of sight

NOTE: Actual working range depends on RF signal absorption, reflection and interference.

Audio Frequency Response

45 to 15,000 Hz, ± 2 dB. **NOTE:** Overall system frequency response depends on the microphone element.

Gain Adjustment Range

UC1: –6 to 34 dB

UC2: –6 to 26 dB

Modulation

± 45 kHz deviation compressor-expander system with pre-and de-emphasis

RF Power Output

UC1, UC2: 20 mW, typical

Dynamic Range

>100 dB, A-weighted

Receiver Audio Output Level (Maximum)

+5 dBu typical, unbalanced output

+14 dBu typical, balanced output

RF Sensitivity

UC4: –108 dBm at 12 dB SINAD

Image Rejection

90 dB typical

Spurious Rejection

70 dB typical

Ultimate Quieting (ref. 20 kHz deviation)

>100 dB, A-weighted

Audio Polarity

Positive pressure on microphone diaphragm (or positive voltage applied to tip of WA302 phone plug) produces positive voltage on pin 2 with respect to pin 3 of low impedance output and the tip of the high impedance $1/4$ -inch output

System Distortion (ref. ± 20 kHz deviation, 1 kHz modulation)

0.4% Total Harmonic Distortion typical

Power Requirements

UC1, UC2: 9V alkaline battery (Duracell MN1604 recommended); Nicad optional

UC4: 15 Vdc, 600 mA 50/60 Hz

Power Consumption: 600 mA x 15 V, maximum

Transmitter Battery Life (Typical)

8 hours (with Duracell MN1604 9V alkaline battery)

Operating Temperature Range

–7° to 49° C (20° to 120° F) **NOTE:** Battery characteristics may limit this range.

Overall Dimensions

UC1: 99.06 mm L x 63.50 mm W x 22.86 mm D (3–29/32 L x 2–1/2 W x 29/32 in. D)

UC2/58: 247.30 mm L x 50.8 mm Dia. (9–1/2 L x 2 in. Dia.)

UC2/BETA 58: 241.30 mm L x 50.80 mm Dia. (9–1/2 L x 2 in. Dia.)

UC2/87: 215.90 mm x 50.80 mm Dia. (8–1/2 L x 2 in. Dia.)

UC2/BETA 87: 215.90 mm L x 50.8 mm Dia. (8–1/2 L x 2 in. Dia.)

UC4: 44.50 mm H x 197.40 mm W x 214.30 mm D (1–3/4 L x 7.77 W x 8.44 in. D)

Net Weight

UC1: 73.50 g (2.59 oz.) without battery

UC2/58, U2/BETA 58: 311.9 g (11 oz.) without battery

UC2/87, U2/BETA 87: 198.5 g (7 oz.) without battery

UC4: 1.22 kg (2 lbs, 11 oz.)

Certification

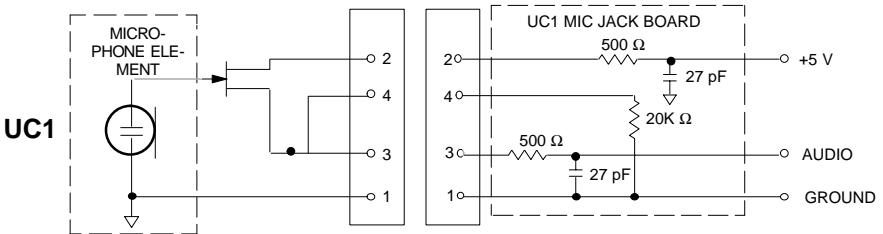
UC1, UC2: BAPT Type Approved to FTZ 17TR 2019 and BAPT 122 R1; EMC Approved to ETS 300 445.

UC4: VDE Certified to EN 60 950. BAPT Type Approved to FTZ 17TR 2019 and BAPT 122 R1; EMC Approved to ETS 300 445. Meets Low Voltage Directive.

UC Type Approved and EMC Approved systems are eligible to carry the CE marking.

UC1 Transmitter Input (Figure 1)

Connector:	4-Pin Female Miniature ConnectorTA4F . or LEMO connector (optional)
Input Configuration:	Unbalanced, active
Actual Impedance:	18 k Ω with lavalier microphone 1 M Ω with instrument cable
Maximum Input Level:	9 Vp-p (10 dBV) for 1% THD at minimum gain setting using 1 kHz signal.
4-Pin Female Miniature ConnectorTA4F Pin Assignments:	Pin 1: Tied to Ground Pin 2: Tied to +5 V Pin 3: Tied to Audio Pin 4: Tied thru 20k Ω Resistor to Ground. (On instrument adapter cable, Pin 4 floats)
LEMO Connector Pin Assignments:	Pin 1: Tied to Pin 3 and 10 k Ω to Ground Pin 2: +5V Pin 3: Tied to Pin 1 Pin 4: Tied to Shield (Ground for Positive Bias)
Voltage for Remote Power:	+5 V supplied to microphone cartridge



NOTE: LAVALIER MIC TIES PINS 3 AND 4 TOGETHER; GUITAR CABLE DOES NOT.

UC1L (LEMO 4 PIN) MIC JACK BOARD

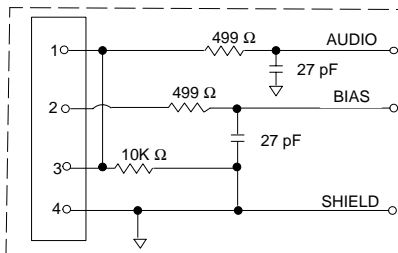


FIGURE 1

UC1 Transmitter Output

Antenna:	Flexible 1/4 wave wire
Actual Impedance:	50 Ω
Nominal Output Level:	+16 dBm
Maximum Output Level:	+17 dBm

UC2 Transmitter Input

Input Configuration:	Unbalanced, active
Actual Impedance:	25 k Ω
Maximum Input Level:	9 V _{p-p} (10 dBV) for 1% THD at minimum gain setting using 1 kHz signal.

UC2 Transmitter Output

Antenna:	Internal dipole
Actual Impedance:	50 Ω
Nominal Output Level:	+16 dBm
Maximum Output Level:	+17 dBm

UC4 Receiver Input

Connector:	Antenna	Power Input
Connector Type:	BNC	dc style
Actual Impedance:	50 Ω	—
Nominal Input Level:	-95 to -30 dBm	15 Vdc
Maximum Input Level:	+6 dBm (-20 dBm recommended)	17 Vdc
Pin Assignments:	Shell = Ground Center = Signal	Center pin positive

UC4 Receiver Output

Connector:	High Z Audio	Low Z Audio
Output Configuration:	Unbalanced	Balanced
Actual Impedance:	1 k Ω	44 Ω
Nominal Input Level:	—	—
Output Level:	5 dBu maximum	14 dBu maximum
Pin Assignments:	Tip = Hot Ring/ Sleeve = Gnd	1 = Ground 2 = Hot 3 = Hot

FURNISHED ACCESSORIES

Microphone Stand Adapter (UC2)	WA370A
Zipper Bag (UC1)	26A13
Zipper Bag (UC2)	26A14
Screwdriver	80A498
1/4 Wave Antenna	UA400

OPTIONAL ACCESSORIES

Instrument Adapter Cable (UC1)	WA302
4-Pin Female Miniature Connector TA4F(UC1)	WA330
In-Line Audio Switch (UC1)	WA360
1.8 Meter (6 ft) Receiver-Mixer Cable (1/4" phone to XLR)	WA410
0.6 Meter (2 ft.) Antenna Extension Cable	UA802
7.6 Meter (25 ft) Antenna Extension Cable	UA825
15.2 (50 ft) Meter Antenna Extension Cable	UA850
In-Line Active Remote Antenna Kit (800 – 830 MHz) (If using the UA845-MB Antenna/Power Distribution System)	UA830C
Antenna/Power Distribution System, 230 Vac	UA845-MB
Directional Antenna for UC4 Receiver (If using the UA845-MB Antenna/Power Distribution System)	UA870MB
Remote Mute Switch for UC1	UA101
Passive Antenna Splitter/Combiner	UA220
1/2 Wave Omnidirectional Antenna for UC4 Receiver	UA820A
Remote Mount Antenna Kit	UA500
Front Mount Antenna Kit	UA600

REPLACEMENT PARTS

Hardware Kit (screwdriver, mounting feet, cable clamps)	90VX1371
Bulkhead Adapters for Front-Mounting Antennas	95A8647
15 Vdc Power Cord (230 VAC)	PS40E
SM58 [®] Cartridge with Grille (UC2/58)	R158
BETA 58A [®] Cartridge with Grille (UC2/BETA 58)	R179
SM87 Cartridge with Grille (UC2/87)	R165
BETA 87A Cartridge with Grille (UC2/BETA 87A)	R166
BETA 87C Cartridge with Grille (UC2/BETA 87C)	RPW100
Matte Silver Grille (UC2/58)	RK143G
Matte Silver Grille (UC2/BETA 58)	RK265G
Matte Silver Grille (UC2/BETA 87A)	RK313G
Black Grille (UC2/87C)	RK214G
Black Grille (UC2/BETA 58)	RK323G
Black Grille (UC2/BETA 87A)	RK324G
Belt Clip (UC1)	44A8013
Mounting Brackets, Long	53A8458
Mounting Brackets, Short	53A8454
Mounting Brackets, Link	31A8138
UC4 Logic Connector (Phoenix)	95A8580

FREQUENCY SELECTION GUIDE

The Shure UC Wireless System is designed for maximum flexibility and versatility in a variety of applications. Up to 16 Shure UHF Wireless Systems can be operated simultaneously in a single installation using the frequency compatibility groups. Please contact Shure Incorporated if you need additional information or assistance in frequency selection and setup.

Compatibility Groups

The Shure UC Wireless System includes 10 groups of compatible channels. If you are using more than one receiver in the same area, we recommend that you set the receivers to different frequencies within the same group.

Compatible Frequency List

The following table lists the frequencies in each of the ten compatibility groups.

		GROUP									
		GRP 0	GRP 1	GRP 2	GRP 3	GRP 4	GRP 5	GRP 6	GRP 7	GRP 8	GRP 9
C H A N N E L	0	800.700	817.750	816.625	817.750	817.475	817.350	800.800	800.100	800.100	800.100
	1	801.600	800.375	800.375	800.500	800.475	800.225	801.300	800.700	800.700	800.700
	2	802.200	801.500	801.625	801.750	801.350	800.850	802.600	801.900	801.600	801.900
	3	803.400	802.000	802.375	802.500	801.975	801.725	803.300	802.500	802.200	802.800
	4	804.000	802.875	803.375	803.500	803.225	802.225	804.900	803.400	803.400	803.400
	5	804.900	804.000	804.125	804.250	805.600	802.975	806.200	804.000	804.000	804.600
	6	805.500	804.500	804.625	804.750	806.475	803.975	806.800	805.200	804.900	805.200
	7	808.500	805.750	805.375	805.500	806.975	805.350	807.800	805.800	805.500	808.200
	8	811.200	806.750	807.125	807.250	807.725	805.975	813.400	808.800	808.500	808.800
	9	812.700	807.250	808.125	808.250	808.725	807.475	814.000	809.400	810.000	810.000
	A	814.500	808.375	808.625	808.750	810.225	809.350	815.200	810.600	810.600	810.600
	B	815.100	809.250	809.375	809.500	811.225	812.975	815.800	811.200	811.800	811.500
	C	816.000	809.750	809.875	810.000	814.475	813.850	816.700	812.100	812.400	812.100
	D	817.200	813.375	811.375	811.500	815.225	814.350	817.900	812.700	813.300	813.300
	E	818.100	816.000	813.625	813.750	815.725	815.475	818.500	813.900	813.900	813.900
	F	818.700	817.250	816.125	816.250	816.475	816.225	819.700	814.500	817.500	818.700

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