

# 7000 SERIES

## HIGH PERFORMANCE WIRELESS AUDIO



Wireless microphone systems for film & drama location sound recording, ENG, EFP and outside broadcast units

- CLASS LEADING WIRELESS AUDIO SOLUTIONS
- HUGE CHOICE OF PRODUCTS, SYSTEMS AND CONFIGURATIONS
- AVAILABLE IN ALTERNATIVE RF BANDWIDTHS
- SWITCHABLE UP TO 100 FREQUENCIES
- RENOWNED AUDIO QUALITY, RF STABILITY & LONG-TERM RELIABILITY
- FLEXIBLE SINGLE AND MULTI-CHANNEL OPTIONS

# 700 SERIES

Setting industry standards for over 30 years, Micron wireless microphone and communication systems are designed for the optimum balance of performance, cost and long-term reliability. The 700 Series combines the legendary Micron sound quality with sophisticated electronic engineering and rock-solid construction.

Transmitters and receivers are manufactured from a high-strength one-piece extrusion, with a rugged anodised finish, and all feature high-quality connectors, with a unique design of battery compartment that is simple to operate by feel alone and accepts commonly available alkaline batteries. Matching performance to budget as precisely as possible, systems are available with alternative switching bandwidths up to 48MHz wide, and are switchable across up to 100 frequencies - maximising operational flexibility for sound recordists, ENG teams and studio crews.



## TX700 FEATURES

- Electronic modulation indicator
- Switchable bass-cut and phase-reverse
- Transmitter battery level indication and transmitted warning system
- +ve and -ve bias for electret microphones
- External powering (+12 to +16V) with TP series leads
- Powering for a wide range of 'Phantom' and 'T' condenser mics

## TX700

## Pocket Transmitter

The Micron TX700's sophisticated design is based around a low-noise VCO, with digitally controlled PLL circuit, producing the highest possible quality of transmitted signal. The lightweight, yet rugged aluminium extrusion case provides strength and durability, and is designed to withstand the heavy demands of location use, while being comfortable to wear - ideal for situations where concealment is important. The unique battery compartment design enables fast and easy battery replacement.



Adjustment of the audio level is straightforward, with the modulation level control easily accessible through the TX700's top panel, where peak-reading LEDs (-10 and 0dB) indicate the audio level, allowing repeatable levels to be set. The TX700 includes a soft audio limiting circuit, with the threshold user-adjustable to give a wide range of operation from fully automatic to no limiting action. The advanced design enables the limiter to be used as an automatic level control, without the pumping effect usually associated with audio AGC, and it can also be used as a 'distortionless' emergency limiter to prevent over-modulation.

Additional front-end protection is provided by a bass-cut switch, which can reduce wind noise and counteract close-microphone effects. The use of dedicated audio input cables enables the transmitter to accept line and mic level signals, and to power a variety of microphone types. A phase-reversal switch is flush-mounted on the transmitter's side panel, while a top-panel flush-mounted on/off switch removes the need to disconnect microphones to turn off the transmitter. The TX700 also has a battery condition indicator, and transmits an inaudible 'low battery voltage' warning to a matching Micron receiver.



### Micron KAT66 Lavalier Microphone

- miniature omni-directional lavalier microphone
- film, television and theatre applications
- wide frequency response from electret condenser capsule
- minimal transmission of handling noise and clothing rustles
- soft housing and cable strain relief utilise single injection moulding



#### TX703 FEATURES

- Dynamic or condenser capsules
- Interchangeable condenser capsules
- Wide dynamic range
- Switchable 3-position gain sensitivity
- Switchable 3-position low-cut switch
- Built-in anti-popping filters
- User-accessible ON-MUTE-OFF switch
- Dual low-battery warning

## TX703 Hand-Held Transmitter

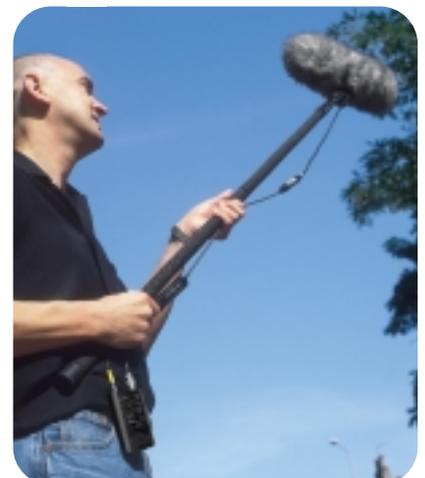
With a choice of alternative capsules - the condenser options include Omni, Cardioid or Hyper-Cardioid - the TX703 is designed to cater for the full range of applications, from ENG and studio presentation, to live performance. The design is housed in a tough, machined aluminium body and features the unique Micron noise reduction system, as well as the same digitally-controlled low-noise VCO circuitry as the TX700, for the highest possible transmission quality.

An audio mute position is incorporated into the on-off switch, allowing the transmitter to remain powered but with no audio being transmitted. A 3-position audio sensitivity switch enables optimisation of the signal to noise ratio, and an electronic anti-popping filter affords protection against overload, even at high sound pressure levels. Further front-end protection is provided by a 3-position bass-cut switch, which may be used to reduce wind noise and counteract close-microphone effects. With its high signal to noise ratio, the TX703 can faithfully accommodate a wide dynamic range, while the absence of a soft limiter reduces the possibility of howl round and eliminates image shifting.

Equipped with a battery condition indicator, the TX703 also transmits an inaudible 'low battery voltage' warning, which activates a visual indicator on the appropriate Micron receiver. Used with a Micron 700 Series receiver, the TX703 can achieve a quality of sound virtually indistinguishable from a wired system.

## P48 Phantom Boom

A battery-operated phantom power unit, the P48 Phantom Boom gives wireless freedom to sound recordists and television crews when operating boom-mounted microphones. Providing a transformer-balanced connection, the Phantom Boom supplies a 48V feed to any phantom-powered microphone and is compatible with any belt-pack style transmitter. The device is also suitable for any recording situation where a remote phantom power feed is required.



- Highly efficient DC-to-DC converter for long battery life
- Integral 1:1 transformer provides DC isolation for microphone and transmitter
- Ultra-quiet noise floor
- 300kHz oscillator to ensure frequency is beyond audible spectrum



**SDR770 FEATURES**

- Very small, high quality receiver
- Multi-purpose design
- ENG/EFP and location sound
- Camera mounting options
- Signal strength and battery voltage indicator
- Mic and variable-line outputs
- Internal or external powering

**SDR770**

**Small Diversity Receiver**

Designed for use in situations where receiver size and weight is at a premium, the SDR770 receiver maintains absolute integrity in terms of quality, performance and reliability. Small and light enough to mount easily onto an ENG camcorder, or attach to a recorder, the SDR770 is a true space diversity design, and is one of the smallest internally-powered units currently available.

Diversity designs offer dramatic improvements to dead-spot (signal dropout) problems compared to conventional receivers, with two independent receiver sections fed from separate antennas and a combining circuit that automatically rejects the output from the section receiving the weakest signal.



The SDR770 offers excellent standards of RF performance - multiple RF stages give outstanding sensitivity and selectivity, and the digitally controlled PLL offers optimum mobile operation. The unique noise reduction system provides trouble-free operation in low RF signal situations, even in hostile RF environments.

Audio output and external powering are via a multipin connector, with both mic and balanced high level available simultaneously. The variable high-level signal can be used for feeding line inputs or headphones. A 3-colour LED display on the top panel provides continuous information on received signal strength, while a tri-colour LED continuously monitors receiver battery condition. The SDR770 also has 2 additional green LEDs above each antenna socket, to show which receiver is active.

Powering can be from an internal battery or external source - either via the multipin connector using a +7.5 to +16V dc supply, or by phantom power via the antenna connector.



**SQDC**

**Shoulder Case**

The Micron SQDC is a strong leather-cased system that can house up to four SDR770 diversity receivers, with integral antenna distribution and power pack. Signal outputs are via four XLR connectors, which provide balanced feeds at mic or high level.



#### DDH2 FEATURES

- Up to 4-channel operation from single pair of antennas
- Transformer-balanced audio outputs
- Receivers powered via antenna sockets
- Single power source can drive DDH2, mixer and recorder
- Separate power switching for external equipment

## DDH2

The Micron DDH2 is a dual-diversity housing for SDR770 diversity receivers, and provides maximum flexibility for sound recordists, small studios and rental companies. Its dimensions are compatible with most common location mixing consoles, and it can be used singly as a two-channel system or two units can be cascaded together to form a portable four-channel solution.

Designed to be driven by an external DC power source, the DDH2 features integral antenna and power distribution, with each SDR770 being phantom powered via internal band-pass RF distribution amplifiers.

## Dual Diversity Housing



## MR700



## Monitoring Receiver

The Monitoring Receiver brings the audio and RF performance benefits of Micron designs to production monitoring, providing stable, fatigue-free listening over long periods for programme presenters, television studio personnel or location crews.

The wide-bandwidth audio performance is complemented by an ultra-low noise floor, and the design is focused on achieving excellent channel selectivity and blocking capacity. This prevents interference from other RF equipment operating in close physical proximity or on a nearby frequency - for example, a presenter wearing the receiver as well as a belt-pack transmitter.

#### MR700 FEATURES

- Wide bandwidth audio
- Output drives down to 8 Ohms
- Long battery life
- Fatigue-free long-term monitoring
- Supplied with 16 frequencies
- Switching bandwidths up to 24MHz
- Choice of base-station transmitters

# TECHNICAL SPECIFICATION

	TX700	TX703	SDR770
<b>RF TRANSMISSION SYSTEM</b>			
Carrier range (to order)	470 to 870MHz	470 to 870MHz	470 to 870MHz
Channels (depending upon model)	up to 100	up to 100	up to 100
Switching range (depending upon model)	up to 48MHz	up to 48MHz	up to 48MHz
Modulation system	F3EGN	F3EGN	F3EGN
Minimum channel spacing	200kHz	200kHz	200kHz
Maximum Deviation	75kHz	75kHz	—
Reference Deviation	40kHz	40kHz	40kHz
Adjacent Channel Rejection	—	—	>80dB
Muting Level	—	—	1.0µV
RF Output (ERP)	50mW	10mW	—
<b>AUDIO</b>			
System S/N Ratio	>100dB	>100dB	>100dB
Frequency Response	80Hz to 20kHz ±1dB (nom.)	100 to 20kHz ±2dB	80Hz to 20kHz ±1dB (nom.)
Distortion (@ ref. deviation level)	1kHz tone <0.3% THD 1kHz tone @ -10dB: 0.1% THD Typical	<0.3% THD	<0.2%
<b>FILTERS</b>			
	—	Anti-Popping – corner frequency: 75Hz, slope: 24dB/octave	High pass, 50Hz
<b>BASS CUT</b>			
	Fixed Bass Cut: -5dB at 50Hz (nom.) Additional 6dB cut at 60Hz	3-position switch Flat, -3dB at 88Hz, -3dB at 125Hz	—
<b>LEVEL CONTROL</b>			
	Manual pre-set, 40dB in 8 steps	3-position switch: Loud (-15dB), Normal 0dB, Quiet (+15dB)	Mic level: -26dBV, Output impedance: 50 Ω Variable High level (max. output): 0dBV
<b>PHASE REVERSE</b>			
	Normal/Reverse	Normal/Reverse	—
<b>VOLUME/SIGNAL STRENGTH</b>			
	'0' light – at ALC threshold	—	Signal strength: Top lamps green >50µV
<b>LED INDICATORS</b>			Centre lamp green >5µV
			Lower lamps red >1µV
			Green active lights indicate which receiver is contributing audio to output
<b>FREQUENCY CONTROL</b>			
	Screwdriver pre-set	Screwdriver pre-set	Screwdriver pre-set
<b>BATTERY CONDITION INDICATOR</b>			
	LED at <6.5V	LED at <6.5V	GREEN: >7.0V, AMBER: >6.5V, RED: <6.5V, NO LIGHT: Battery Flat
<b>Tx LOW BATTERY WARNING</b>			
	Signal transmitted at <6.5V	Signal transmitted at <6.5V	Lower lamps flash when Tx battery <6.5V
<b>BATTERY TYPE</b>			
	IEC 6LR61 (MN1604) PP3 size 9V (alkaline or lithium)	IEC 6LR61 (MN1604) PP3 size 9V (alkaline or lithium)	IEC 6LR61 (MN1604) PP3 size 9V (alkaline or lithium)
Current consumption	65mA ±10%	60mA ±10%	90mA ±10%
Battery Life	Approx. 6 hours	Approx. 7 hours	Approx. 4 hours
External Power	7.5 to 16V dc (with 'TP' cables)	—	7.5 to 16V dc (with 'CP' cables)
<b>DIMENSIONS</b>			
Width	63mm	38mm	62mm
Depth	22mm	38mm	22mm
Height	82mm	233mm	128mm
Weight	110 grams	240 grams	185 grams
<b>ACCESSORIES SUPPLIED</b>			
	Antenna	Antenna	2 Antennas
	Instruction manual	Instruction manual	Instruction manual
	Belt Clip	—	—

