

# TwinPlex™ TL45 Subminiature Lavalier Microphones

## Overview

Expressively natural sound, low sensitivity, high max SPL, and interchangeable sweat-resistant frequency caps all make the TwinPlex™ TL45 the perfect companion for professional theater applications. The thin, durable 1.1 mm diameter paintable cable is terminated with a professional LEMO connector and is easily concealed in a costume or wig.

## Features

- The TL45 is ideal for use in theater settings
- Twice the surface area of other subminiature microphones for pristine, natural response and robust low-frequency response due to the patent pending dual-diaphragm design
- Improved off-axis consistency yields accurate reproduction regardless of vocal source position or movement
- Best-in-class low self-noise and dynamic range for cleaner audio production
- Interchangeable sweat- and moisture-resistant frequency caps prevent sweat-outs due to an invisible superhydrophobic nanoscopic coating
- Paintable 1.1 mm cable that is immune to memory effect and kinks
- A single medical-grade spiraling conductor in the cable delivers increased flexibility while built-in reinforcing fibers offer additional cable strength for longevity
- Sound signature: Natural
- Sensitivity: Low
- Colors: Black, Cocoa, Tan, White
- Connectors: LEMO
- Accessories: Available separately

## Specifications

Microphone Capsule	Dual-Diaphragm, Prepolarized Condenser
Polar Pattern	Omnidirectional
Frequency Response	20 Hz to 20 kHz
Sensitivity <i>at 1 kHz</i>	-45.0 dBV (5.62 mV)
Self-Noise, <i>A-Weighted, Equivalent Acoustical</i>	24.5 dB SPL-A
Signal-To-Noise Ratio	69.5 dB
Output Clipping Level	3.0 dBV, 1 kHz <i>at 1% THD, typical</i>
Maximum SPL	142.0 dB SPL <i>1 kHz at 1% THD, typical</i>
Dynamic Range	117.5 dB <i>typical</i>
Microphone Current Draw	120 to 240 µA, typical
Bias Voltage <i>Recommended Operating Voltage</i>	5 VDC
Housing	Molded ABS
Polarity	Positive pressure at diaphragm leads to negative voltage with respect to ground
Cable Diameter	1.1 mm
Cable Length	66 in. (1.67 m)
Microphone Length	13.5 mm
Microphone Diameter	5.6 mm
Net Weight <i>with Cable</i>	12.0 g (0.42 oz.)

## Available Models

<b>TL45B/O-LEMO</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, 1.1 mm Cable with LEMO Connector, Black
<b>TL45C/O-LEMO</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, 1.1 mm Cable with LEMO Connector, Cocoa
<b>TL45T/O-LEMO</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, 1.1 mm Cable with LEMO Connector, Tan
<b>TL45W/O-LEMO</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, 1.1 mm Cable with LEMO Connector, White



**TwinPlex™ TL45**  
Subminiature Lavalier  
Microphone

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# TwinPlex™ TL45 Subminiature Lavalier Microphones

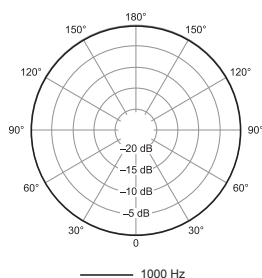
## Furnished Accessories

- Frequency Caps, Flat Response, Qty. 3
- Frequency Caps, Presence Response, Qty. 2

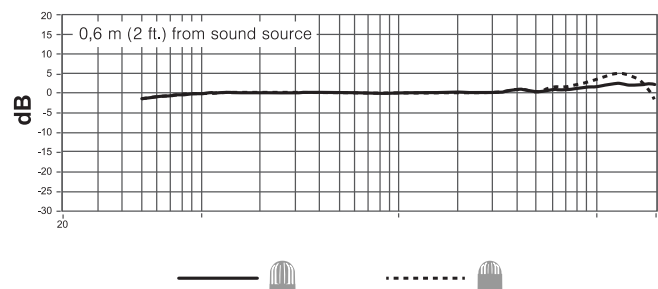
## Optional Accessories

Replacement Connectors		Clips and Mounts		Preamps	
<b>WA411</b>	Replacement LEMO3, 1.1 mm connector	<b>RPM40STC/B</b>	Single Tie Clip, Black, Qty. 3	<b>RPM400LEMO</b>	Wired LEMO3 to XLR Preamplifier with Beltclip
<b>Windscreens</b>		<b>RPM40STC/C</b>	Single Tie Clip, Cocoa, Qty. 3	<b>Other</b>	
<b>RPM40WS/B</b>	Windscreens, Black, Qty. 5	<b>RPM40STC/T</b>	Single Tie Clip, Tan, Qty. 3	<b>RPM40PREMNT</b>	Preamplifier Mounting Kit
<b>RPM40WS/T</b>	Windscreens, Tan, Qty. 5	<b>RPM40STC/W</b>	Single Tie Clip, White, Qty. 3	<b>RPM40PRECLIP</b>	Beltclip for RPM400 Preamplifiers
<b>RPM40WS/C</b>	Windscreens, Cocoa, Qty. 5	<b>RPM40TC/B</b>	Dual Tie Clip, Black, Qty. 3	<b>RPM40KIT</b>	Full Accessory Kit for TL Lavaliers
<b>RPM40WS/W</b>	Windscreens, White, Qty. 5	<b>RPM40TC/C</b>	Dual Tie Clip, Cocoa, Qty. 3	<b>RPM40CASE</b>	Storage Case for TL Lavalier
<b>RPM40WS/M</b>	Windscreens (2 of each color), Qty. 8	<b>RPM40TC/T</b>	Dual Tie Clip, Tan, Qty. 3		
<b>RPM40MWJ</b>	Rycote MiniWindjammer, Gray, Qty. 2	<b>RPM40TC/W</b>	Dual Tie Clip, White, Qty. 3		
<b>Frequency Caps</b>		<b>RPM40TC/M</b>	Single Tie Clip Mix Pack (1 of each color)		
<b>RPM40FC/B</b>	Flat cap, Black, Qty. 10	<b>RPM40VM/B</b>	Black Vampire Clip, Qty. 3		
<b>RPM40FC/C</b>	Flat cap, Cocoa, Qty. 10	<b>RPM40VM/W</b>	White Vampire Clip, Qty. 3		
<b>RPM40FC/T</b>	Flat cap, Tan, Qty. 10	<b>RPM40SM</b>	Clear Sticky Mount Qty. 3		
<b>RPM40FC/W</b>	Flat cap, White, Qty. 10	<b>RPM40MM/B</b>	Black Magnet Mount, Qty. 2		
<b>RPM40PC/B</b>	Presence cap, Black, Qty. 10	<b>RPM40MM/W</b>	White Magnet Mount, Qty. 2		
<b>RPM40PC/C</b>	Presence cap, Cocoa, Qty. 10	<b>RPM40SVM/B</b>	Vampire Sticky Mount, Qty. 3		
<b>RPM40PC/T</b>	Presence cap, Tan, Qty. 10	<b>RPM40TS</b>	Adhesives for Sticky Mount. Qty. 15		
<b>RPM40PC/W</b>	Presence cap, White, Qty. 10	<b>RPM40TS/50</b>	Adhesives for Sticky Mount. Qty. 50		
		<b>RPM40SO/B</b>	Black Standoff for TL accessories, Qty. 10		
		<b>RPM40SO/C</b>	Cocoa Standoff for TL accessories, Qty. 10		
		<b>RPM40SO/T</b>	Tan Standoff for TL accessories, Qty. 10		
		<b>RPM40SO/W</b>	White Standoff for TL accessories, Qty. 10		

Polar Patterns



Frequency Response



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# TwinPlex™ TL46 Subminiature Lavalier Microphones

## Overview

TwinPlex™ TL46 offers unmatched signal-to-noise, superior natural sound quality, and a high sensitivity output. Perfect for dialogue and medium SPL applications, the TL46 also features an ultra-durable 1.6 mm paintable cable, interchangeable moisture-resistant frequency caps with LEMO or TA4F connectors. It's the premium choice when the message needs to rise above the noise.

## Features

- The TL46 is ideal for a variety of theater, film, broadcast, and live TV applications when additional output (8-10dB) is required
- Twice the surface area of other subminiature microphones for pristine, natural response and robust low-frequency response due to the patent pending dual-diaphragm design
- Improved off-axis consistency yields accurate reproduction regardless of vocal source position or movement
- Best-in-class low self-noise and dynamic range for cleaner audio production
- Interchangeable sweat- and moisture-resistant frequency caps prevent sweat-outs due to an invisible superhydrophobic nanoscopic coating
- Paintable 1.6 mm cable that is immune to memory effect and kinks
- Dual redundant ground in cable serves as secondary shield for longevity
- Sound signature: Natural
- Sensitivity: High
- Colors: Black, Cocoa, Tan, White
- Connectors: LEMO, MTQG/TA4F
- Accessories: Available separately

## Specifications

Microphone Capsule	Dual-Diaphragm, Prepolarized Condenser
Polar Pattern	Omnidirectional
Frequency Response	20 Hz to 20 kHz
Sensitivity	-37.0 dBV(14.1 mV) at 1 kHz
Self-Noise, <i>A-Weighted, Equivalent Acoustical</i>	24.0 dB SPL-A
Signal-To-Noise Ratio	70.0 dB
Output Clipping Level	3.0 dBV, 1 kHz <i>at 1% THD, typical</i>
Maximum SPL	134.0 dB SPL <i>1 kHz at 1% THD, typical</i>
Dynamic Range	110.0 dB <i>typical</i>
Microphone Current Draw	120 to 240 µA, typical
Bias Voltage <i>Recommended Operating Voltage</i>	5 VDC
Housing	Molded ABS
Polarity	LEMO: Positive pressure at diaphragm leads to negative voltage with respect to ground MTQG: Positive pressure at diaphragm leads to positive voltage with respect to ground
Cable Diameter	1.6 mm
Cable Length	66 in. (1.67 m)
Microphone Length	13.5 mm
Microphone Diameter	5.6 mm
Net Weight <i>with Cable</i>	12.0 g (0.42 oz.)

## Available Models

<b>TL46B/O-LEMO</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, High Sensitivity, 1.6 mm Cable with LEMO Connector, Black
<b>TL46B/O-MTQG</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, High Sensitivity, 1.6 mm Cable with MTQG Connector, Black
<b>TL46C/O-LEMO</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, High Sensitivity, 1.6 mm Cable with LEMO Connector, Cocoa
<b>TL46C/O-MTQG</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, High Sensitivity, 1.6 mm Cable with MTQG Connector, Cocoa
<b>TL46T/O-LEMO</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, High Sensitivity, 1.6 mm Cable with LEMO Connector, Tan
<b>TL46T/O-MTQG</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, High Sensitivity, 1.6 mm Cable with MTQG Connector, Tan
<b>TL46W/O-LEMO</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, High Sensitivity, 1.6 mm Cable with LEMO Connector, White
<b>TL46W/O-MTQG</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, High Sensitivity, 1.6 mm Cable with MTQG Connector, White



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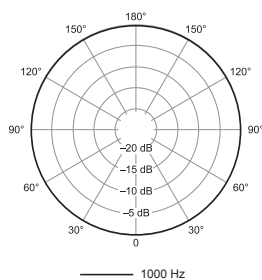
## Furnished Accessories

- Frequency Caps, Flat Response, Qty. 3
- Frequency Caps, Presence Response, Qty. 2

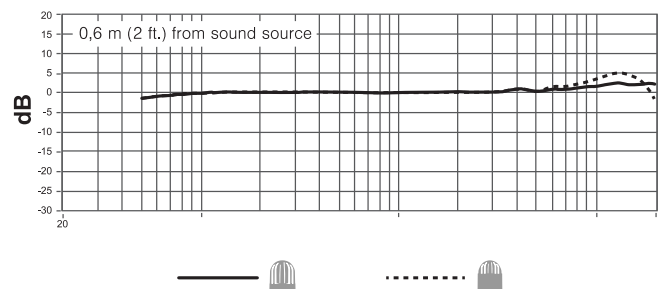
## Optional Accessories

Replacement Connectors		Clips and Mounts		Preamps	
<b>WA430</b>	Replacement Neutrik mTQG connector kit, TA4F	<b>RPM40STC/B</b>	Single Tie Clip, Black, Qty. 3	<b>RPM400TQG</b>	Wired TQG to XLR Preamplifier with Beltclip
<b>WA435</b>	Replacement Neutrik mTQG connector kit, TA5F	<b>RPM40STC/C</b>	Single Tie Clip, Cocoa, Qty. 3	<b>RPM400LEMO</b>	Wired LEMO3 to XLR Preamplifier with Beltclip
<b>WA445</b>	Neutrik threaded collar shell for WA430/WA435	<b>RPM40STC/T</b>	Single Tie Clip, Tan, Qty. 3	<b>Other</b>	
<b>WA416</b>	Replacement LEMO3, 1.6 mm connector	<b>RPM40STC/W</b>	Single Tie Clip, White, Qty. 3	<b>RPM40PREMNT</b>	Preamplifier Mounting Kit
<b>Windscreens</b>		<b>RPM40TC/B</b>	Dual Tie Clip, Black, Qty. 3	<b>RPM40PRECLIP</b>	Beltclip for RPM400 Preamplifiers
<b>RPM40WS/B</b>	Windscreens, Black, Qty. 5	<b>RPM40TC/C</b>	Dual Tie Clip, Cocoa, Qty. 3	<b>RPM40KIT</b>	Full Accessory Kit for TL Lavaliers
<b>RPM40WS/T</b>	Windscreens, Tan, Qty. 5	<b>RPM40TC/T</b>	Dual Tie Clip, Tan, Qty. 3	<b>RPM40CASE</b>	Storage Case for TL Lavalier
<b>RPM40WS/C</b>	Windscreens, Cocoa, Qty. 5	<b>RPM40TC/W</b>	Dual Tie Clip, White, Qty. 3		
<b>RPM40WS/W</b>	Windscreens, White, Qty. 5	<b>RPM40TC/M</b>	Single Tie Clip Mix Pack (1 of each color)		
<b>RPM40WS/M</b>	Windscreens (2 of each color), Qty. 8	<b>RPM40VM/B</b>	Black Vampire Clip, Qty. 3		
<b>RPM40MWJ</b>	Rycote MiniWindjammer, Gray, Qty. 2	<b>RPM40VM/W</b>	White Vampire Clip, Qty. 3		
<b>Frequency Caps</b>		<b>RPM40SM</b>	Clear Sticky Mount Qty. 3		
<b>RPM40FC/B</b>	Flat cap, Black, Qty. 10	<b>RPM40MM/B</b>	Black Magnet Mount, Qty. 2		
<b>RPM40FC/C</b>	Flat cap, Cocoa, Qty. 10	<b>RPM40MM/W</b>	White Magnet Mount, Qty. 2		
<b>RPM40FC/T</b>	Flat cap, Tan, Qty. 10	<b>RPM40SVM/B</b>	Vampire Sticky Mount, Qty. 3		
<b>RPM40FC/W</b>	Flat cap, White, Qty. 10	<b>RPM40TS</b>	Adhesives for Sticky Mount. Qty. 15		
<b>RPM40PC/B</b>	Presence cap, Black, Qty. 10	<b>RPM40TS/50</b>	Adhesives for Sticky Mount. Qty. 50		
<b>RPM40PC/C</b>	Presence cap, Cocoa, Qty. 10	<b>RPM40SO/B</b>	Black Standoff for TL accessories, Qty. 10		
<b>RPM40PC/T</b>	Presence cap, Tan, Qty. 10	<b>RPM40SO/C</b>	Cocoa Standoff for TL accessories, Qty. 10		
<b>RPM40PC/W</b>	Presence cap, White, Qty. 10	<b>RPM40SO/T</b>	Tan Standoff for TL accessories, Qty. 10		
		<b>RPM40SO/W</b>	White Standoff for TL accessories, Qty. 10		

Polar Patterns



Frequency Response



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# TwinPlex™ TL47 Subminiature Lavalier Microphones

## Overview

The expressively natural sounding TwinPlex™ TL47 is available with color options and mounting choices for all professional applications. The low sensitivity can handle critical acoustic environments without distortion and the 1.6 mm paintable cable stands up to the most demanding and challenging situations. The TL47 is the go-to subminiature lavalier line for flexibility.

## Features

- With a variety of colors, mounting options, and accessories, the TL47 is ideal for nearly any lavalier application
- Twice the surface area of other subminiature microphones for pristine, natural response and robust low-frequency response due to the patent pending dual-diaphragm design
- Improved off-axis consistency yields accurate reproduction regardless of vocal source position or movement
- Best-in-class low self-noise and dynamic range for cleaner audio production
- Interchangeable sweat- and moisture-resistant frequency caps prevent sweat-outs due to an invisible superhydrophobic nanoscopic coating
- Paintable 1.6 mm cable that is immune to memory effect and kinks
- Dual redundant ground in cable serves as secondary shield for longevity
- Sound signature: Natural
- Sensitivity: Low
- Colors: Black, Cocoa, Tan, White
- Connectors: LEMO, MTQG/TA4F, MicroDot, XLR/Preamp, NC (bare wire)
- Accessories: Available with or without accessories

## Specifications

Microphone Capsule	Dual-Diaphragm, Prepolarized Condenser
Polar Pattern	Omnidirectional
Frequency Response	20 Hz to 20 kHz
Sensitivity at 1 kHz	-45.0 dBV (5.62 mV)
Self-Noise, A-Weighted, Equivalent Acoustical	24.5 dB SPL-A
Signal-To-Noise Ratio	69.5 dB
Output Clipping Level	3.0 dBV, 1 kHz at 1% THD, typical
Maximum SPL	142.0 dB SPL 1 kHz at 1% THD, typical
Dynamic Range	117.5 dB typical
Microphone Current Draw	120 to 240 µA, typical
Bias Voltage Recommended Operating Voltage	5 VDC
Housing	Molded ABS
Polarity	LEMO, NC, MDOT: Positive pressure at diaphragm leads to negative voltage with respect to ground MTQG, XLR connector: Positive pressure at diaphragm leads to positive voltage with respect to ground
Cable Diameter	1.6 mm
Cable Length	66 in. (1.67 m)
Microphone Length	13.5 mm
Microphone Diameter	5.6 mm
Net Weight with Cable	12.0 g (0.42 oz.)



**TwinPlex™ TL47**  
Subminiature Lavalier  
Microphone

## Available Models

<b>TL47B/O-LEMO</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, 1.6 mm Cable with LEMO Connector, Black
<b>TL47B/O-LEMO-A</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, 1.6 mm Cable with LEMO Connector, Black with Accessories
<b>TL47B/O-MDOT-A</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, 1.6 mm Cable with MicroDot Connector, Black with Accessories
<b>TL47B/O-MTQG</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, 1.6 mm Cable with MTQG Connector, Black
<b>TL47B/O-MTQG-A</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, 1.6 mm Cable with MTQG Connector, Black with Accessories
<b>TL47B/O-NC-A</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, 1.6 mm Cable with bare wire terminal, Black
<b>TL47B/O-XLR-A</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, 1.6 mm Cable with XLR Connector, Black with Accessories
<b>TL47C/O-LEMO</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, 1.6 mm Cable with LEMO Connector, Cocoa
<b>TL47C/O-LEMO-A</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, 1.6 mm Cable with LEMO Connector, Cocoa with Accessories
<b>TL47C/O-MDOT-A</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, 1.6 mm Cable with MicroDot Connector, Cocoa with Accessories
<b>TL47C/O-MTQG</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, 1.6 mm Cable with MTQG Connector, Cocoa
<b>TL47C/O-MTQG-A</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, 1.6 mm Cable with MTQG Connector, Cocoa with Accessories
<b>TL47C/O-NC-A</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, 1.6 mm Cable with bare wire terminal, Cocoa with Accessories
<b>TL47T/O-LEMO</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, 1.6 mm Cable with LEMO Connector, Tan
<b>TL47T/O-LEMO-A</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, 1.6 mm Cable with LEMO Connector, Tan with Accessories
<b>TL47T/O-MDOT-A</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, 1.6 mm Cable with MicroDot Connector, Tan with Accessories
<b>TL47T/O-MTQG</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, 1.6 mm Cable with MTQG Connector, Tan
<b>TL47T/O-MTQG-A</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, 1.6 mm Cable with MTQG Connector, Tan with Accessories
<b>TL47T/O-NC-A</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, 1.6 mm Cable with bare wire terminal, Tan with Accessories
<b>TL47W/O-LEMO</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, 1.6 mm Cable with LEMO Connector, White
<b>TL47W/O-LEMO-A</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, 1.6 mm Cable with LEMO Connector, White with Accessories
<b>TL47W/O-MDOT-A</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, 1.6 mm Cable with MicroDot Connector, White with Accessories
<b>TL47W/O-MTQG</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, 1.6 mm Cable with MTQG Connector, White
<b>TL47W/O-MTQG-A</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, 1.6 mm Cable with MTQG Connector, White with Accessories
<b>TL47W/O-NC-A</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, 1.6 mm Cable with bare wire terminal, White with Accessories

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# TwinPlex™ TL47 Subminiature Lavalier Microphones

## Furnished Accessories

- Frequency Caps, Flat Response, Qty. 3
- Frequency Caps, Presence Response, Qty. 2

### -A SKUs add:

- Single Tie Clip, Qty. 1
- Dual Tie Clip, Qty. 1
- Standoff for Tie Clip, Qty. 5
- Vampire Mount, Qty. 1
- Sticky Vampire Mount, Qty. 1
- Foam Windscreen, Qty. 2
- Clear Sticky Mount, Qty. 1
- Sticky Mount Adhesives, Qty. 10
- Storage Case for TL Lavalier, Qty. 1

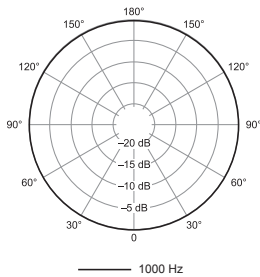


-A Included Accessories Shown

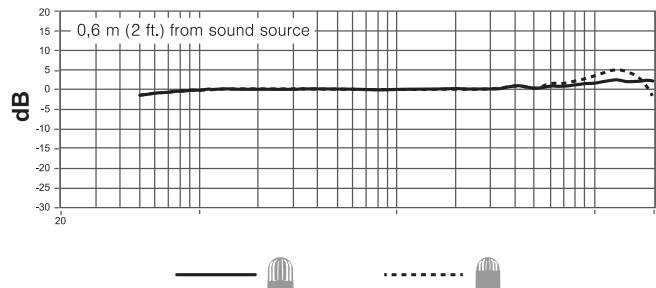
## Optional Accessories

Replacement Connectors		Clips and Mounts		Preamps	
<b>WA430</b>	Replacement Neutrik mTQG connector kit, TA4F	<b>RPM40STC/B</b>	Single Tie Clip, Black, Qty. 3	<b>RPM400TQG</b>	Wired TQG to XLR Preamplifier with Beltclip
<b>WA435</b>	Replacement Neutrik mTQG connector kit, TA5F	<b>RPM40STC/C</b>	Single Tie Clip, Cocoa, Qty. 3	<b>RPM400LEMO</b>	Wired LEMO3 to XLR Preamplifier with Beltclip
<b>WA445</b>	Neutrik threaded collar shell for WA430/WA435	<b>RPM40STC/T</b>	Single Tie Clip, Tan, Qty. 3	<b>MicroDot Adapters</b>	
<b>WA416</b>	Replacement LEMO3, 1.6 mm connector	<b>RPM40STC/W</b>	Single Tie Clip, White, Qty. 3	<b>MD40LEMO</b>	MicroDot-to-LEMO3 Adapter
<b>Windscreens</b>		<b>RPM40TC/B</b>	Dual Tie Clip, Black, Qty. 3	<b>MD40TA4F</b>	MicroDot-to-TA4F Adapter
<b>RPM40WS/B</b>	Windscreens, Black, Qty. 5	<b>RPM40TC/C</b>	Dual Tie Clip, Cocoa, Qty. 3	<b>MD40TA5F</b>	MicroDot-to-TA5F Adapter
<b>RPM40WS/T</b>	Windscreens, Tan, Qty. 5	<b>RPM40TC/T</b>	Dual Tie Clip, Tan, Qty. 3	<b>Other</b>	
<b>RPM40WS/C</b>	Windscreens, Cocoa, Qty. 5	<b>RPM40TC/W</b>	Dual Tie Clip, White, Qty. 3	<b>RPM40PREMNT</b>	Preamplifier Mounting Kit
<b>RPM40WS/W</b>	Windscreens, White, Qty. 5	<b>RPM40TC/M</b>	Single Tie Clip Mix Pack (1 of each color)	<b>RPM40PRECLIP</b>	Beltclip for RPM400 Preamplifiers
<b>RPM40WS/M</b>	Windscreens (2 of each color), Qty. 8	<b>RPM40VM/B</b>	Black Vampire Clip, Qty. 3	<b>RPM40KIT</b>	Full Accessory Kit for TL Lavaliers
<b>RPM40MWJ</b>	Rycote MiniWindjammer, Gray, Qty. 2	<b>RPM40VM/W</b>	White Vampire Clip, Qty. 3	<b>RPM40CASE</b>	Storage Case for TL Lavalier
<b>Frequency Caps</b>		<b>RPM40SM</b>	Clear Sticky Mount Qty. 3		
<b>RPM40FC/B</b>	Flat cap, Black, Qty. 10	<b>RPM40MM/B</b>	Black Magnet Mount, Qty. 2		
<b>RPM40FC/C</b>	Flat cap, Cocoa, Qty. 10	<b>RPM40MM/W</b>	White Magnet Mount, Qty. 2		
<b>RPM40FC/T</b>	Flat cap, Tan, Qty. 10	<b>RPM40SVM/B</b>	Vampire Sticky Mount, Qty. 3		
<b>RPM40FC/W</b>	Flat cap, White, Qty. 10	<b>RPM40TS</b>	Adhesives for Sticky Mount. Qty. 15		
<b>RPM40PC/B</b>	Presence cap, Black, Qty. 10	<b>RPM40TS/50</b>	Adhesives for Sticky Mount. Qty. 50		
<b>RPM40PC/C</b>	Presence cap, Cocoa, Qty. 10	<b>RPM40SO/B</b>	Black Standoff for TL accessories, Qty. 10		
<b>RPM40PC/T</b>	Presence cap, Tan, Qty. 10	<b>RPM40SO/C</b>	Cocoa Standoff for TL accessories, Qty. 10		
<b>RPM40PC/W</b>	Presence cap, White, Qty. 10	<b>RPM40SO/T</b>	Tan Standoff for TL accessories, Qty. 10		
		<b>RPM40SO/W</b>	White Standoff for TL accessories, Qty. 10		

### Polar Patterns



### Frequency Response



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# TwinPlex™ TL48 Subminiature Lavalier Microphones

## Overview

The TwinPlex™ TL48 offers a tailored response with a mid-range rise that's ideal for speech and dialogue applications, such as film and TV. Designed with leading audio professionals' input, the TL48 is easily concealed in a costume or directly against the skin under wardrobe, and offers extensive accessories to ensure quick, easy, and secure mounting—all with no impact on sound quality.

## Features

- With a fixed frequency cap and mid-band boost that accentuates dialogue, the TL48 is ideal for film and TV applications
- Improved off-axis consistency, due to the patent pending dual-diaphragm design, yields accurate reproduction regardless of vocal source position or movement
- Best-in-class low self-noise and dynamic range for cleaner audio production
- Fixed frequency cap with internal hydrophobic woven lining resists sweat and moisture
- Paintable 1.6 mm cable that is immune to memory effect and kinks
- Dual redundant ground in cable serves as secondary shield for longevity
- Sound signature: Tailored for dialogue (6dB mid-band boost at about 7kHz)
- Sensitivity: Low
- Colors: Black, Tan, White
- Connectors: LEMO, MTQG/TA4F, MicroDot, XLR/Preamp, NC (bare wire)
- Accessories: Available with accessories

## Specifications

Microphone Capsule	Dual-Diaphragm, Prepolarized Condenser
Polar Pattern	Omnidirectional
Frequency Response	20 Hz to 20 kHz
Sensitivity <i>at 1 kHz</i>	-45.0 dBV (5.62 mV)
Self-Noise, <i>A-Weighted, Equivalent Acoustical</i>	24.5 dB SPL-A
Signal-To-Noise Ratio	69.5 dB
Output Clipping Level	3.0 dBV, 1 kHz <i>at 1% THD, typical</i>
Maximum SPL	142.0 dB SPL <i>1 kHz at 1% THD, typical</i>
Dynamic Range	117.5 dB <i>typical</i>
Microphone Current Draw	120 to 240 µA, typical
Bias Voltage <i>Recommended Operating Voltage</i>	5 VDC
Housing	Molded ABS
Polarity	LEMO, NC, MDOT: Positive pressure at diaphragm leads to negative voltage with respect to ground MTQG, XLR connector: Positive pressure at diaphragm leads to positive voltage with respect to ground
Cable Diameter	1.6 mm
Cable Length	MTQG, LEMO, MDOT: 66 in. (1.67 m) NC, XLR connector: 96 in. (2.43 m)
Microphone Length	19 mm
Microphone Diameter	5.3 mm
Net Weight <i>with Cable</i>	12.0 g (0.42 oz.)



**TwinPlex™ TL48**  
Subminiature Lavalier  
Microphone

## Available Models

<b>TL48B/O-LEMO-A</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, Tailored Response, 1.6 mm Cable with LEMO Connector, Black with Accessories
<b>TL48B/O-MDOT-A</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, Tailored Response, 1.6 mm Cable with MicroDot Connector, Black with Accessories
<b>TL48B/O-MTQG-A</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, Tailored Response, 1.6 mm Cable with MTQG Connector, Black with Accessories
<b>TL48B/O-NC-A</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, Tailored Response, 1.6 mm Cable with bare wire terminal, Black with Accessories
<b>TL48B/O-XLR-A</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, Tailored Response, 1.6 mm Cable with XLR Preamp, Black with Accessories
<b>TL48T/O-LEMO-A</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, Tailored Response, 1.6 mm Cable with LEMO Connector, Tan with Accessories
<b>TL48T/O-MDOT-A</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, Tailored Response, 1.6 mm Cable with MicroDot Connector, Tan with Accessories
<b>TL48T/O-MTQG-A</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, Tailored Response, 1.6 mm Cable with LEMO Connector, Tan with Accessories
<b>TL48T/O-NC-A</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, Tailored Response, 1.6 mm Cable with bare wire terminal, Tan with Accessories
<b>TL48W/O-LEMO-A</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, Tailored Response, 1.6 mm Cable with LEMO Connector, White with Accessories
<b>TL48W/O-MDOT-A</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, Tailored Response, 1.6 mm Cable with MicroDot Connector, White with Accessories
<b>TL48W/O-MTQG-A</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, Tailored Response, 1.6 mm Cable with MTQG Connector, White with Accessories
<b>TL48W/O-NC-A</b>	TwinPlex™ Subminiature Omnidirectional Lavalier, Low Sensitivity, Tailored Response, 1.6 mm Cable with bare wire terminal, White with Accessories

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# TwinPlex™ TL48 Subminiature Lavalier Microphones

## Furnished Accessories

- Single Tie Clip, Qty. 1
- Dual Tie Clip, Qty. 1
- Standoff for Tie Clip, Qty. 5
- Vampire Mount, Qty. 1
- Sticky Vampire Mount, Qty. 1
- Foam Windscreen, Qty. 2
- Clear Sticky Mount, Qty. 1
- Sticky Mount Adhesives, Qty. 10
- Storage Case for TL Lavalier, Qty. 1

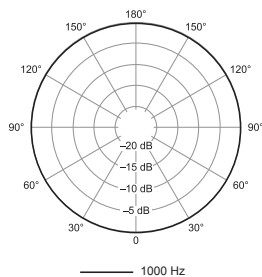


Included Accessories Shown

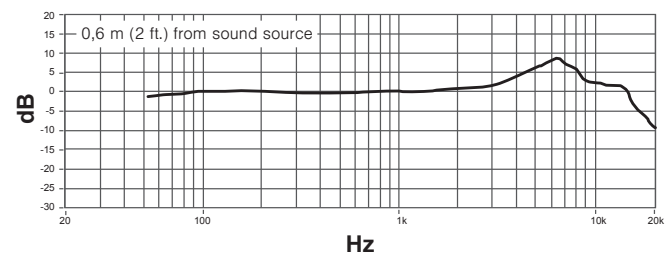
## Optional Accessories

Replacement Connectors		Clips and Mounts		Preamps	
<b>WA430</b>	Replacement Neutrik mTQG connector kit, TA4F	<b>RPM40STC/B</b>	Single Tie Clip, Black, Qty. 3	<b>RPM400TQG</b>	Wired TQG to XLR Preamplifier with Beltclip
<b>WA435</b>	Replacement Neutrik mTQG connector kit, TA5F	<b>RPM40STC/T</b>	Single Tie Clip, Tan, Qty. 3	<b>RPM400LEMO</b>	Wired LEMO3 to XLR Preamplifier with Beltclip
<b>WA445</b>	Neutrik threaded collar shell for WA430/WA435	<b>RPM40STC/W</b>	Single Tie Clip, White, Qty. 3	<b>MicroDot Adapters</b>	
<b>WA416</b>	Replacement LEMO3, 1.6 mm connector	<b>RPM40TC/B</b>	Dual Tie Clip, Black, Qty. 3	<b>MD40LEMO</b>	MicroDot-to-LEMO3 Adapter
<b>Windscreens</b>		<b>RPM40TC/T</b>	Dual Tie Clip, Tan, Qty. 3	<b>MD40TA4F</b>	MicroDot-to-TA4F Adapter
<b>RPM40WS/B</b>	Windscreens, Black, Qty. 5	<b>RPM40TC/W</b>	Dual Tie Clip, White, Qty. 3	<b>MD40TA5F</b>	MicroDot-to-TA5F Adapter
<b>RPM40WS/T</b>	Windscreens, Tan, Qty. 5	<b>RPM40TC/M</b>	Single Tie Clip Mix Pack (1 of each color)	<b>Other</b>	
<b>RPM40WS/W</b>	Windscreens, White, Qty. 5	<b>RPM40VM/B</b>	Black Vampire Clip, Qty. 3	<b>RPM40PREMNT</b>	Preamplifier Mounting Kit
<b>RPM40WS/M</b>	Windscreens (2 of each color), Qty. 8	<b>RPM40VM/W</b>	White Vampire Clip, Qty. 3	<b>RPM40PRECLIP</b>	Beltclip for RPM400 Preamplifiers
<b>RPM40MWJ</b>	Rycote MiniWindjammer, Gray, Qty. 2	<b>RPM40SM</b>	Clear Sticky Mount Qty. 3	<b>RPM40KIT</b>	Full Accessory Kit for TL Lavaliers
		<b>RPM40MM/B</b>	Black Magnet Mount, Qty. 2	<b>RPM40CASE</b>	Storage Case for TL Lavalier
		<b>RPM40MM/W</b>	White Magnet Mount, Qty. 2		
		<b>RPM40SVM/B</b>	Vampire Sticky Mount, Qty. 3		
		<b>RPM40TS</b>	Adhesives for Sticky Mount, Qty. 15		
		<b>RPM40TS/50</b>	Adhesives for Sticky Mount, Qty. 50		
		<b>RPM40SO/B</b>	Black Standoff for TL accessories, Qty. 10		
		<b>RPM40SO/C</b>	Cocoa Standoff for TL accessories, Qty. 10		
		<b>RPM40SO/T</b>	Tan Standoff for TL accessories, Qty. 10		
		<b>RPM40SO/W</b>	White Standoff for TL accessories, Qty. 10		

## Polar Patterns



## Frequency Response



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# TwinPlex™ TH53 Subminiature Headworn Microphone

## Overview

The TwinPlex™ TH53 offers the natural sound of the new TwinPlex element combined with the ease of an ultra-light and fully adjustable headset frame. With an innovative clutch system, the TH53 headset allows for quick adjustment in boom arm length and pitch—all with a simple turn of a knob. Plus, switchable sides and a durable 1.6 mm cable with redundant ground round out this professional headset that overachieves in reliability, audio quality, and comfort.

## Features

- Comfortable, lightweight, and fully adjustable headset for use in theater, broadcast, and speech applications
- Innovative clutch system allows for fast boom arm length and pitch adjustment
- Twice the surface area of other subminiature microphones for pristine, natural response and robust low-frequency response due to the patent pending dual-diaphragm design
- Improved off-axis consistency yields accurate reproduction regardless of vocal source position or movement
- Best-in-class low self-noise and dynamic range for cleaner audio production
- Interchangeable sweat- and moisture-resistant frequency caps prevents sweat-outs due to an invisible superhydrophobic nanoscopic coating
- Paintable 1.6 mm cable that is immune to memory effect and kinks
- Dual redundant ground in cable serves as secondary shield for longevity
- Sound signature: Natural
- Sensitivity: Low
- Colors: Tan, Cocoa, Black
- Connectors: LEMO, MTQG/TA4F, MicroDot, NC (bare wire)
- Accessories: Ships with accessories and storage case

## Specifications

Microphone Capsule	Dual-Diaphragm, Prepolarized Condenser
Polar Pattern	Omnidirectional
Frequency Response	20 Hz to 20 kHz
Sensitivity <i>at 1 kHz</i>	-45.0 dBV (5.62 mV)
Self-Noise, <i>A-Weighted, Equivalent Acoustical</i>	24.5 dB SPL-A
Signal-To-Noise Ratio	69.5 dB
Output Clipping Level	3.0 dBV, 1 kHz <i>at 1% THD, typical</i>
Maximum SPL	142.0 dB SPL <i>1 kHz at 1% THD, typical</i>
Dynamic Range	117.5 dB <i>typical</i>
Microphone Current Draw	120 to 240 $\mu$ A, typical
Bias Voltage <i>Recommended Operating Voltage</i>	5 VDC
Housing	Molded ABS
Polarity	LEMO, NC, MDOT: Positive pressure at diaphragm leads to negative voltage with respect to ground MTQG, XLR connector: Positive pressure at diaphragm leads to positive voltage with respect to ground
Cable Diameter	1.6 mm
Cable Length	MTQG, LEMO, MDOT: 66 in. (1.67 m) NC: 96 in. (2.43 m)
Microphone Length	13.5 mm
Microphone Diameter	5.6 mm
Net Weight <i>with Cable</i>	Boom arm, with cable: 12.0 g (0.42 oz.) Headset frame: 6.0 g (0.21 oz.)

## Available Models

<b>TH53B/O-LEMO</b>	TwinPlex™ Subminiature Omnidirectional Headset Microphone Low Sensitivity, 1.6 mm Cable with LEMO Connector, Black
<b>TH53B/O-MDOT</b>	TwinPlex™ Subminiature Omnidirectional Headset Microphone Low Sensitivity, 1.6 mm Cable with MicroDot Connector, Black
<b>TH53B/O-MTQG</b>	TwinPlex™ Subminiature Omnidirectional Headset Microphone Low Sensitivity, 1.6 mm Cable with MTQG Connector, Black
<b>TH53B/O-NC</b>	TwinPlex™ Subminiature Omnidirectional Headset Microphone Low Sensitivity, 1.6 mm Cable with bare wire terminal, Black
<b>TH53C/O-LEMO</b>	TwinPlex™ Subminiature Omnidirectional Headset Microphone Low Sensitivity, 1.6 mm Cable with LEMO Connector, Cocoa
<b>TH53C/O-MDOT</b>	TwinPlex™ Subminiature Omnidirectional Headset Microphone Low Sensitivity, 1.6 mm Cable with MicroDot Connector, Cocoa
<b>TH53C/O-MTQG</b>	TwinPlex™ Subminiature Omnidirectional Headset Microphone Low Sensitivity, 1.6 mm Cable with MTQG Connector, Cocoa
<b>TH53T/O-LEMO</b>	TwinPlex™ Subminiature Omnidirectional Headset Microphone Low Sensitivity, 1.6 mm Cable with LEMO Connector, Tan
<b>TH53T/O-MDOT</b>	TwinPlex™ Subminiature Omnidirectional Headset Microphone Low Sensitivity, 1.6 mm Cable with MicroDot Connector, Tan
<b>TH53T/O-MTQG</b>	TwinPlex™ Subminiature Omnidirectional Headset Microphone Low Sensitivity, 1.6 mm Cable with MTQG Connector, Tan
<b>TH53T/O-NC</b>	TwinPlex™ Subminiature Omnidirectional Headset Microphone Low Sensitivity, 1.6 mm Cable with bare wire terminal, Tan



**TwinPlex™ TH53**  
Subminiature Headset  
Microphone

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# TwinPlex™ TH53 Subminiature Headworn Microphone

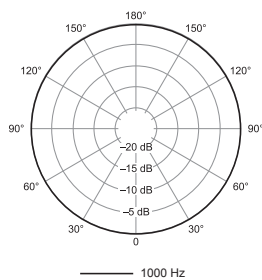
## Furnished Accessories

- Storage Case
- Frequency Caps, Flat Response, Qty. 3
- Frequency Caps, Presence Response, Qty. 2
- Windscreen, Qty. 2
- Cable Clip, Qty. 2
- Cable Flex, Qty. 2
- Collar Clip, Qty. 1

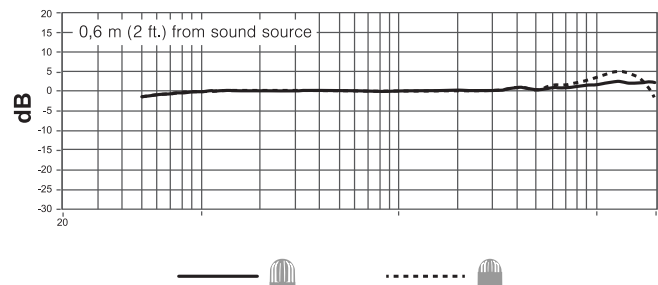
## Optional Accessories

Headset Accessories and Replacement Parts		Preamps	Tie Clips
<b>RPM53B/O-MTQG</b>	Replacement Boom Arm, Black, MTQG Connector	<b>RPM400TQG</b> Wired TQG to XLR Preamplifier with Beltclip	<b>RPM40STC/B</b> Single Mount Tie Clip, Black, Qty. 3
<b>RPM53C/O-MTQG</b>	Replacement Boom Arm, Cocoa, MTQG Connector	<b>RPM400LEMO</b> Wired LEMO3 to XLR Preamplifier with Beltclip	<b>RPM40STC/C</b> Single Mount Tie Clip, Cocoa, Qty. 3
<b>RPM53T/O-MTQG</b>	Replacement Boom Arm, Tan, MTQG Connector	<b>Replacement Connectors</b>	<b>RPM40STC/T</b> Single Mount Tie Clip, Tan, Qty. 3
<b>RPM53B/O-LEMO</b>	Replacement Boom Arm, Black, LEMO Connector	<b>WA430</b> Replacement Neutrik mTQG connector kit, TA4F	<b>Other</b>
<b>RPM53C/O-LEMO</b>	Replacement Boom Arm, Cocoa, LEMO Connector	<b>WA435</b> Replacement Neutrik mTQG connector kit, TA5F	<b>RPM40PREMNT</b> Preamplifier Mounting Kit
<b>RPM53T/O-LEMO</b>	Replacement Boom Arm, Tan, LEMO Connector	<b>WA445</b> Neutrik threaded collar shell for WA430/WA435	<b>RPM40PRECLIP</b> Beltclip for RPM400 Preamplifiers
<b>RPM53B/O-MDOT</b>	Replacement Boom Arm, Black, Microdot Connector	<b>WA416</b> Replacement LEMO3, 1.6 mm connector	
<b>RPM53C/O-MDOT</b>	Replacement Boom Arm, Cocoa, Microdot Connector		
<b>RPM53T/O-MDOT</b>	Replacement Boom Arm, Tan, Microdot Connector	<b>Frequency Caps</b>	
<b>RPM53B/O-NC</b>	Replacement Boom Arm, Black, No Connector	<b>RPM40FC/B</b> Flat cap, Black, Qty. 10	
<b>RPM53C/O-NC</b>	Replacement Boom Arm, Cocoa, No Connector	<b>RPM40FC/T</b> Flat cap, Tan, Qty. 10	
<b>RPM53T/O-NC</b>	Replacement Boom Arm, Tan, No Connector	<b>RPM40FC/C</b> Flat cap, Cocoa, Qty. 10	
<b>RPM53B-HF</b>	Headset Frame for TH53, Black	<b>RPM40PC/B</b> Presence cap, Black, Qty. 10	
<b>RPM53C-HF</b>	Headset Frame for TH53, Cocoa	<b>RPM40PC/C</b> Presence cap, Cocoa, Qty. 10	
<b>RPM53T-HF</b>	Headset Frame for TH53, Tan	<b>RPM40PC/T</b> Presence cap, Tan, Qty. 10	
<b>RPM53B-CC</b>	Headset Cable Clip, Black, Qty. 3	<b>Windscreens</b>	
<b>RPM53C-CC</b>	Headset Cable Clip, Cocoa, Qty. 3	<b>RPM40WS/B</b> Windscreens, Black, Qty. 5	
<b>RPM53T-CC</b>	Headset Cable Clip, Tan, Qty. 3	<b>RPM40WS/T</b> Windscreens, Tan, Qty. 5	
<b>RPM53B-CF</b>	Headset Cable Flex, Black, Qty. 3	<b>RPM40WS/C</b> Windscreens, Cocoa, Qty. 5	
<b>RPM53C-CF</b>	Headset Cable Flex, Cocoa, Qty. 3	<b>RPM40WS/M</b> Windscreens (2 of each color), Qty. 8	
<b>RPM53T-CF</b>	Headset Cable Flex, Tan, Qty. 3	<b>RPM40MWJ</b> Rycote MiniWindjammer, Gray, Qty 2	
<b>RPM50ES</b>	Earhook Sleeves, Clear, Qty. 4		
<b>RPM50CASE</b>	Storage Case for TH Headset		

Polar Patterns



Frequency Response



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