

Wireless Microphone Systems  
**Using the Latest Technology to Achieve  
Superior Sound Quality**

Conference Centers • Education • Entertainment • Houses of Worship





## Quality Audio for Any Environment & Budget

Wireless microphone systems range from complex to uncomplicated. Regardless of a particular system's features, it includes combinations of these components:

- > Transmitters
- > Microphones (for Bodypack Transmitters)
- > Receivers

Transmitters convert the microphone's audio signals to radio signals. A Handheld Mic Transmitter combines the microphone and transmitter in a single unit, while a Bodypack Transmitter is a wearable unit that accommodates microphones or guitar cables.

Microphones for bodypack transmitters come in head-worn, lavalier (lapel mic) and instrument varieties.

Receivers process radio signals from transmitters and convert those signals back to audio.

## Analog or Digital: Which System is Best?

Analog systems use audio technology that offers quality reception (audio performance) and high channel count.

In contrast, digital systems offer superior reception but fewer channels. The best digital systems combine quality audio with the capacity for accommodating many wireless systems in crowded radio frequency (RF) environments.

As for which types of systems are ideal for a particular applications, relying on the advice of experienced professionals can help users make the right decisions.

# Specifications

Wireless mic systems should use 50 Ohm cables exclusively because of their robust designs and consistent performances. A 50 Ohm coaxial cable, such as an RG8/U, has a much lower loss rate than a 75 Ohm cable, and also offers excellent Power Impedance Matching.



## Bulk Cables (Standard spool size 1,000 ft.)

Catalog No.	NEC Type	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding & % Coverage	Jacket Type	Nom. O.D.	Nom. Capacitance	Nom. VP	Nom. Imp. Ω	Jacket Color
			Inches	% Coverage	Inches					
<b>812</b> RG58A/U Type	CM	20 (19x32) Tinned Copper 8.8 Ω/M'	Gas Injected PET .116	100% Bi-foil AL. +95% Tinned Cu Braid	PVC	.195	25 pf/ft	78%	50Ω	● Black
<b>813</b> RG-58/U Type	CM	20 (Solid) Tinned Copper 10.1 Ω/M'	Gas Injected PET .116	Tinned Copper Braid 95%	PVC	.195	26 pf/ft	78%	50Ω	● Black
<b>25812</b> RG-58/U Type Plenum	CMP	20 (19x32) Tinned Copper 8.8 Ω/M'	Foam FEP .102	100% Bi-foil AL. +95% Tinned Cu Braid	Flex Plenum	.158	25 pf/ft	82%	50Ω	● Ivory
<b>810</b> RG-213/U Type	CM	13 (7x21) Bare Copper 1.9 Ω/M'	Gas Injected PET .280	Bare Copper Braid 95%	PVC	.405	26 pf/ft	80%	50Ω	● Black
<b>25810</b> RG-213/U Type Plenum	CMP	13 (7x21) Bare Copper 1.9 Ω/M'	Foam FEP .280	Bare Copper Braid 95%	PVDF	.352	25 pf/ft	80%	50Ω	● Natural
<b>98G8</b> RG-8/U Type	CM	10AWG Solid Bare Copper .9 Ω/M'	Gas Injected PET .286	100% Bonded Bi-foil AL. + 90% Tinned Cu Braid	PVC	.405	24.5 pf/ft	84%	50Ω	● Black
<b>2598G8</b> RG-8/U Type Plenum	CMP	10AWG Solid Bare Copper .9 Ω/M'	Foam FEP .280	100% Bonded Bi-foil AL. + 90% Tinned Cu Braid	PVDF	.360	25 pf/ft	80%	50Ω	● Black
<b>807X</b> RG-8X/U Type Flexible	CM	16 (19x29) Bare Copper 4.3 Ω/M'	Gas Injected PET .155	100% Bonded Bi-foil AL. + 90% Tinned Cu Braid	PVC	.242	25 pf/ft	82%	50Ω	● Black
<b>808XWB</b> RG8X/U RF240	Outdoor	15 Solid Bare Copper 3.2 Ω/M'	Gas Injected PE 0.15	100% Bonded Bi-foil AL. + 95% TC Braid	PE	.240	23 pf/ft	86%	50Ω	● Black



50Ω BNC Connectors		
Catalog No	50 ohm BNC	Crimp Tool
812	CN-BM53-13	TL-104
25812	CN-BM53-25	TL-105
813	CN-BM53-13	TL-104
810	CN-BM53-8	TL-113
25810	CN25810KBNC	TL-25810
98G8	CN-BM98G8	TL-RG8-10G
2598G8	CN-BM2598G8	TL-RG8-10G
807X	CN-BM53-8X	TL-104
808XWB	CN-BM53-8X	TL-104

BNC to BNC 50Ω Assemblies		
Catalog No.	Description	Footage
CN-807BMBM-xx	RG8x/U Flex Assembly Non-Plenum BNC Male to BNC Male	Replace xx: 1,3,5,7,10,15,20,25
CN-810BMBM-xx	RG213/U 13AWG Assembly Non-Plenum BNC Male to BNC Male	Replace xx: 20,25,35,50,75,100
CN-25810BMBM-xx	RG213/U 13AWG Assembly Plenum BNC Male to BNC Male	Replace xx: 20,25,35,50,75,100
CN-98G8BMBM-xx	RG8/U 10AWG Assembly Non-Plenum BNC Male to BNC Male	Replace xx: 35,50,75,100,125,150
CN-25RG8BMBM-xx	RG8/U 10AWG Assembly Plenum BNC Male to BNC Male	Replace xx: 35,50,75,100,125,150

Attenuation (dB per 100 ft.)									
CAT. NO.	Type of Cable	1 MHz	10 MHz	100 MHz	200 MHz	400 MHz	900 MHz	1 GHz	2.4GHz
812	RG58/U	0.5	1.3	4.6	6.8	10.1	16.7	18.2	32.2
813	RG58/U	0.6	1.5	4.8	6.9	10.2	16.8	18.3	32.4
25812	RG58/U	0.5	1.3	4.6	6.8	10.1	16.7	18.2	32.2
810	RG213/U	0.2	0.6	2	2.8	4	6.8	7.3	16.8
25810	RG213/U	0.2	0.6	2	2.8	4	6.7	7.2	17.1
98G8	RG8/U	0.1	0.5	1.4	1.8	2.6	4.1	4.4	7.7
2598G8	RG8/U	0.1	0.4	1.6	2.3	3.4	6	6.9	8.2
807X	RG8x/U	0.3	0.9	3.1	4.5	6.6	10.7	15.2	23.1
808XWB	RG8x/U	0.3	0.9	2.4	3.7	5	7.8	8	13.2



50 Ohm coaxial cables help wireless mic systems produce a superior sound.

# Your Best Source for Wireless Mic Systems & More

West Penn Wire (WPW) designs and manufactures wires, cables, harnesses and related products for small, mid-size and Fortune 500 companies worldwide, as well as for audio, video, security and networking applications in these environments:

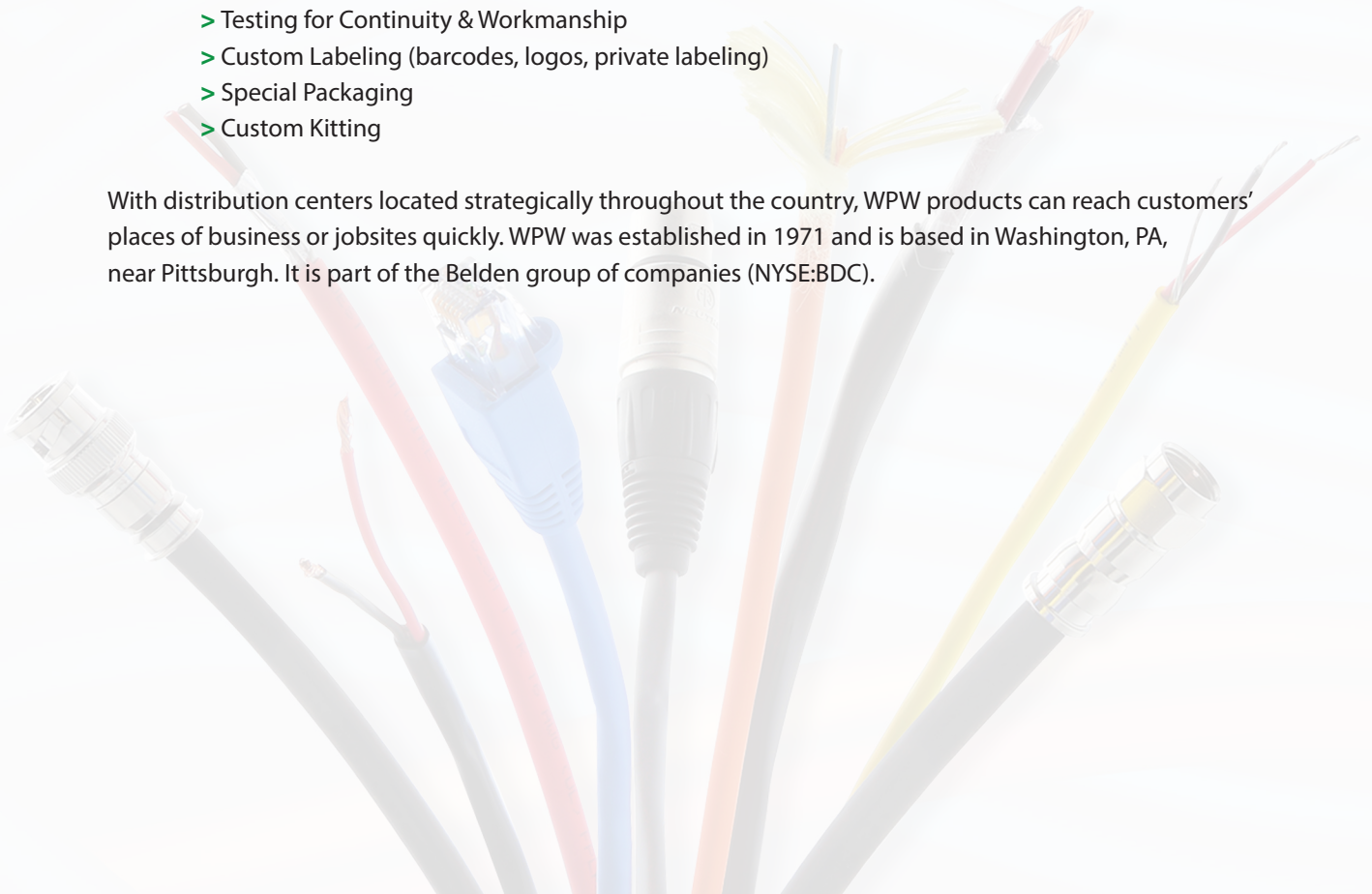
- > Corporate
- > Entertainment
- > Government
- > Healthcare
- > Higher Education
- > Hospitality
- > Houses of Worship
- > Retail

The company's engineering and manufacturing excellence enables customers to obtain solutions that meet the most demanding requirements for audio, video, security and networking applications.

To help meet customers' wire and cabling needs, WPW also offers value-added services, including:

- > Testing for Continuity & Workmanship
- > Custom Labeling (barcodes, logos, private labeling)
- > Special Packaging
- > Custom Kitting

With distribution centers located strategically throughout the country, WPW products can reach customers' places of business or jobsites quickly. WPW was established in 1971 and is based in Washington, PA, near Pittsburgh. It is part of the Belden group of companies (NYSE:BDC).



800.245.4964 | [sales@westpennwire.com](mailto:sales@westpennwire.com) | [www.westpennwire.com](http://www.westpennwire.com)