

Sound performance.

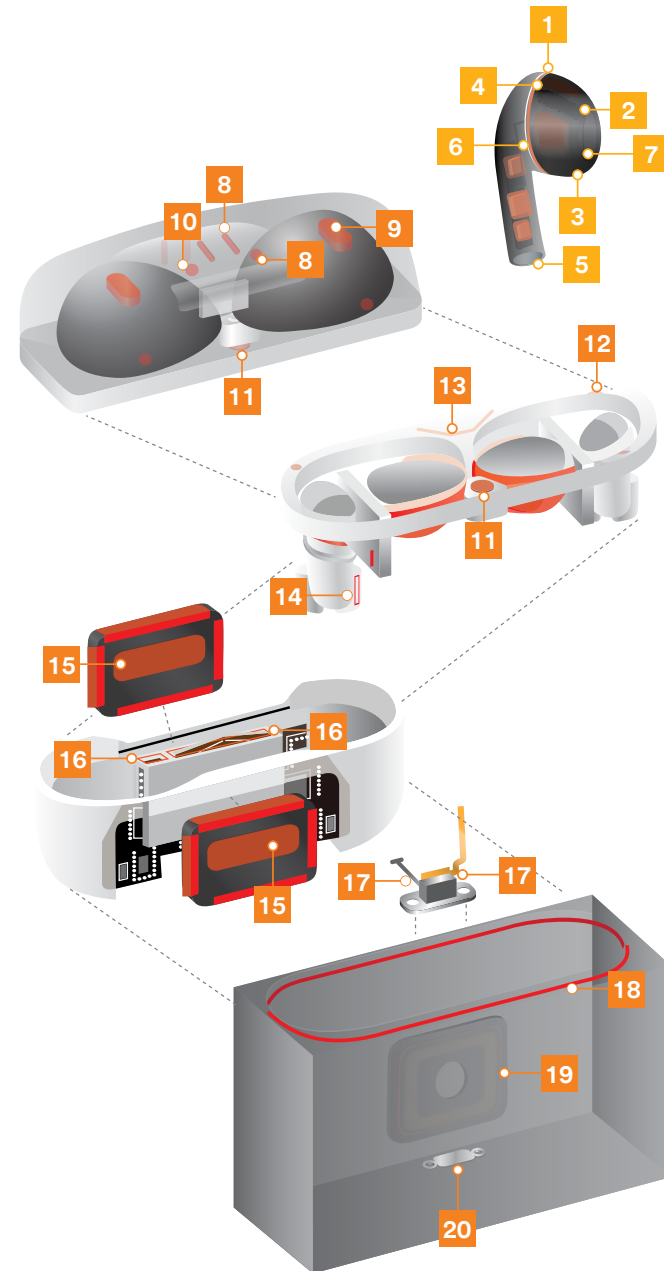
Everyone's life has a soundtrack. Hearables and TWS (true wireless stereo) devices – earbuds, over-the-ear headphones and more – let us enjoy the music of life anytime. They require versatile, flexible bonding materials to join complex components and help the device resist damage if dropped and make it resistant to skin oils, sweat and cosmetics. Maximize the performance of your TWS device by improving the system's grounding and lowering radiated RF signal noise.

3M solutions offer:

- Strong bonding for **earbud shell components** that delivers good jetting performance, fast curing at low temperatures and long pot life at room temperature
- High bonding strength and good reworkability to join metal, plastic and other hard-to-bond substrates in the **earbud charging case**
- **Battery bonding** solutions that deliver good impact resistance and excellent reworkability
- Bond **speaker mesh components** while providing impact, water and chemical resistance
- Flexible and conformable **magnetic shielding solutions** for compact and complex sensitive components
- **FPC grounding solutions** provide FPC flexibility, allowing the connection of different components in different layers within a compact space

TWS (earbuds) Applications

No.	Headset Application	No.	Charging Box Application	No.	Charging Box Application
1	Earpiece shell bonding	8	Cap bonding	15	Battery bonding
2	Vent mesh bonding	9	Foam bonding	16	Motherboard chip bonding
3	FPC bonding	10	Hinge cover bonding	17	Charging FPC bonding
4	Battery, speaker and PCB potting	11	Magnet bonding	18	Shell potting
5	Tail cover fixing seal	12	Tray bonding	19	Wireless charging module and shell bonding
6	Magnetic shielding	13	Magnet bonding	20	Insulated Mylar bonding
7	FPC/MLB grounding	14	Earphone charging terminal potting		



		Number	Application	Featured Product Number	Product Type	Color	Thickness (µm)	Features
TWS (earbuds)	Headset	1	Earpiece shell bonding	6101, 6102	1K Epoxy	Off-white, Black		<ul style="list-style-type: none"> • Excellent impact resistance • Low temperature cure • Flexible and toughened • Plastic bonding
		2	Vent mesh bonding					
		3	FPC bonding	9471LE, 9472LE	Adhesive Transfer Tape	Clear	58, 132	<ul style="list-style-type: none"> • Bonding to low surface energy substrates • Anti-lifting • Resistance to chemicals, moisture and humidity
		4	Battery, speaker and PCB potting	6011LV	1K Epoxy	White		<ul style="list-style-type: none"> • Excellent shear strength • Low temperature cure • Heat and humidity resistance
		5	Tail cover fixing seal	2710P	1K PU Adhesive	Off-white, Black		<ul style="list-style-type: none"> • Fast rate of strength build • PSA-like tack • Immediate handling strength with PSA lamination • Plastic or lens bonding
		6	Magnetic shielding	EM80KM	Absorber	Black	26/31/50	<ul style="list-style-type: none"> • High permeability magnetic foil • Approximately 80,000 permeability maximum • Soft magnetic foil with top black film
				EM160KM	Absorber	Black	26/31/51	<ul style="list-style-type: none"> • High permeability magnetic foil • Approximately 160,000 permeability maximum • Soft magnetic foil with top black film
7	FPC/MLB grounding	9711S	Double Sided Conductive Fabric Tape	Grey	30/50/80/100/120/130/150/170/200/210/220/250/300	<ul style="list-style-type: none"> • XYZ-conductivity • Excellent conformability, quick bonding • Nickel/copper-coated conductive fabric and conductive PSA 		

Chart continued on next page

		Number	Application	Featured Product Number	Product Type	Color	Thickness (µm)	Features		
TWS (earbuds)	Charging box	Upper shell	8	Cap bonding	DP8805LH	2K Acrylic Adhesive	Green		<ul style="list-style-type: none"> • High shear and impact strength • 4-minute work life, 9 min to structural strength • Contains 0.1 mm spacer beads 	
			9	Foam bonding	467MP, 468MP	Adhesive Transfer Tape	Clear	60, 130	<ul style="list-style-type: none"> • Up to 204°C short-term heat resistance • Solvent resistance • High shear strength 	
			10	Hinge cover bonding	DP8805LH	2K Acrylic Adhesive	Green			<ul style="list-style-type: none"> • High shear and impact strength • 4-minute work life, 9 min to structural strength • Contains 0.1 mm spacer beads
			11	Magnet bonding						
			12	Tray bonding						
		13	Magnet bonding							
		14	Earphone charging terminal potting	6011LV	1K Epoxy	White		<ul style="list-style-type: none"> • Excellent shear strength • Low temperature cure • Heat and humidity resistance 		
		Lower shell	15	Battery bonding	3M™ VHB™ 864xx	Acrylic Foam Tape	Black	150/200/250/300	<ul style="list-style-type: none"> • High bonding strength • Impact resistance • Conformable 	
			16	Motherboard chip bonding	6011LV	1K Epoxy	White		<ul style="list-style-type: none"> • Excellent shear strength • Low temperature cure • Heat and humidity resistance 	
			17	Charging FPC bonding	552xxP/BP	Double Coated PET Tape	Clear, Black	50/75/100/120	<ul style="list-style-type: none"> • High initial adhesion • Good shear holding power • Easily converted 	
	18		Shell potting	DP8805LH	2K Acrylic Adhesive	Green			<ul style="list-style-type: none"> • High shear and impact strength • 4-minute work life, 9 min to structural strength • Contains 0.1 mm spacer beads 	
	19		Wireless charging module and shell bonding							
	20		Insulated Mylar bonding	467MP, 468MP	Adhesive Transfer Tape	Clear	60, 130	<ul style="list-style-type: none"> • Up to 204°C short-term heat resistance • Solvent resistance • High shear strength 		

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