



E/M Wave X-Nut



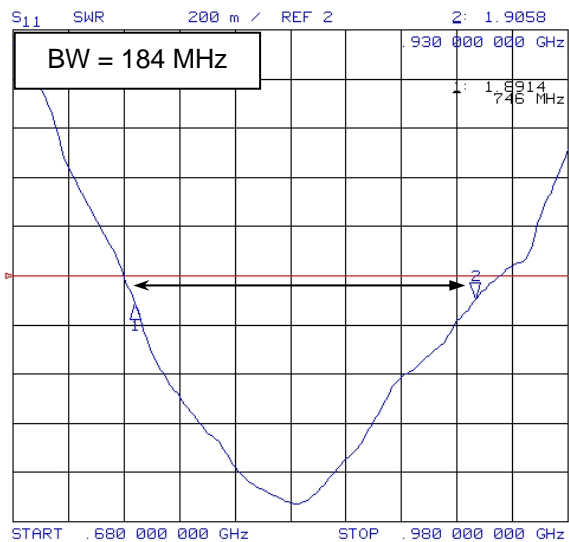
- **Base Nut** – High impact dual shot Xenoy™ / TPV insert mold
 - ✓ Silver plated solid brass components
 - ✓ Eliminates salt/water corrosion
- **Base Water Seal** - Dual seal construction includes TPV dust seal and o-ring. Integrated dust seal provides:
 - ✓ Secure installation augmenting high grip action with firm hand torque.
 - ✓ Dust/moisture resistance against the vehicle mounting surface and
 - ✓ Conformal highly aesthetic finish around perimeter base of antenna against vehicle surface.
- **Antenna/Mount Water Seal** – Insert molded antenna adapter.
 - ✓ Eliminates moisture ingress.
 - ✓ Reliable support for antenna whip through solid brass connections.
 - ✓ No seals needed.
 - ✓ No leakage paths.
 - ✓ No failures.
- **Car Wash Compatible** – Quick release removable whip, maximizing antenna and vehicle protection.
 - ✓ Base remains installed to protect NMO mount during car wash.
 - ✓ Eliminates water damage to NMO mount and vehicle interior.
 - ✓ Eliminates potential whip damage from automatic wash equipment.
 - ✓ Replacement Whips sold separately.

Traditional Chrome Nut



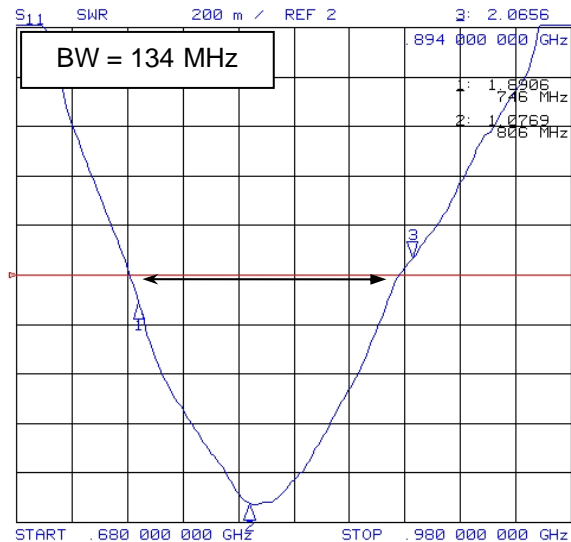
- **Base Nut** – Zinc Die-cast
 - ☒ Chrome plated zinc
 - ☒ Susceptible to Zinc Rust and dissimilar metal corrosion
- **Base Water Seal** – NONE.
 - ☒ Flat gasket aesthetic “gap” filler only used on panels >0.050 in. thick.
 - ☒ Threads exposed to corrosion.
 - ☒ Gasket impedes proper installation.
 - ☒ Archaic industrial design appearance.
- **Antenna/Mount Water Seal** – Relies specifically on the integrity of the antenna’s rubber insulator.
 - ☒ The rubber insulator acts as a 3-way gasket seal between whip, base and NMO Nut ring.
 - ☒ Rubber material fatigues, yields leakage paths when it loses resilience.
 - ☒ Mechanical support failure weakens contact pressure between the whip and NMO mount contacts.
- **Car Wash Incompatible** – Fixed whip installation.
 - ☒ Must remove entire antenna during wash to avoid whip damage.
 - ☒ NMO mount directly exposed to water, and interior vehicle leakage.

- **RF Connection** – Firm hand torque
 - ✓ Silver plated tempered phosphor bronze Leaf Spring contact.
 - ✓ Consistent mechanical contact pressure between antenna feed point and NMO contact pin.
 - ✓ Lifetime noise free RF operation.
- **RF Contact Range.** Traditional NMO contact.
 - ✓ 0 - 6mm.
 - ✓ Clean aesthetic installation appearance
- **Whip/Ball Tip** – Hard Machined brass pressed over end of 300 series stainless whip.
 - ✓ Press meets 40 lb. axial pull.
 - ✓ Life time mechanical performance.
 - ✓ Black chrome finish yields a lifetime corrosion free finish.
 - ✓ Sleek low profile appearance.
- **Operational Bandwidth** – Provides up to 10% more bandwidth when compared to competitive chrome nut designs.



- **Value** – All black construction, without the premium price. Offers superior performance when compared to traditional chrome nut options. Designed for the cost conscientious end user, demanding reliable performance for the planned operational life cycle.

- **RF Connection** – torque with wrench
 - ☒ Requires wrench, and high torque
 - ☒ Depends solely on the rubber insulator to remain in compression, without fatigue.
 - ☒ Insulator failure produces noise or intermittent connection.
- **RF Contact Range.**
 - ☒ None.
 - ☒ Rubber boot compensates for tolerances
- **Whip/Ball Tip** – Bare soft aluminum ball tip
 - ☒ Crushed over the whip end.
 - ☒ Aluminum fatigues, ball tip fails to hold.
 - ☒ Bare 300 series stainless whip.
 - ☒ Low cost construction compromises performance.
- **Operational Bandwidth** – Limited by the metallic die-cast base close proximity to the antenna drive point.



- **Value** – Low cost, low grade product alternative to other lifetime high performance antennas. Offers very limited operational life cycle with a “disposable” product mindset.