



KINTRONIC LABS

an ISO 9001 registered company

4 Custom Solutions for Wireless Co-location on AM Towers

Addressing a variety of applications for wireless and telecommunications operators

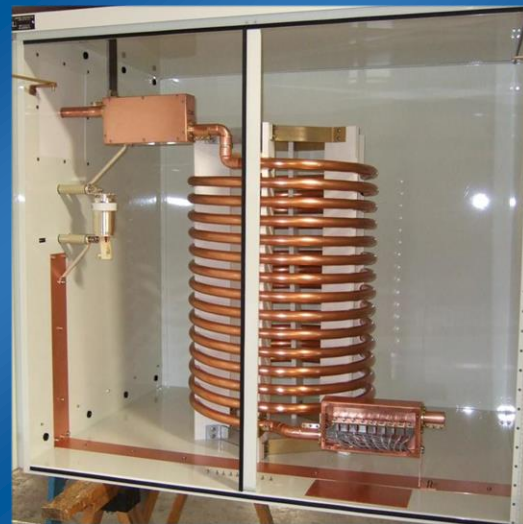
Comparison Chart

P/N	Description	Radio Units	Insertion Loss	Throughput Bandwidth	Servicing
ISO-TEL	Transmission Line Inductor	Off tower	Higher*	Lowest	Can service while on air
ISO-RU-CAT5	Copper Inductor with CAT5 Cables	Mounted on tower	N/A	N/A	Requires AM off air for service
ISO-RU-HYBRID	Hybrid Fiber/Copper Inductor	Mounted on tower	Lowest	Highest	Requires AM off air for service
ISO-RU/RF	High DC Current/AC Power + RF Auxiliary Service Isolation Inductor Assembly	Mounted on tower	Higher*	Lowest	Requires AM off air for service



ISO-TEL: Transmission Line Inductor

- Well-established, proven technology
- Widest range of applications



ISO-RU-CAT5: Copper Inductor with CAT5 Cables

- Standard interface
- Well-established standard
- Wide range of applications

*Insertion Loss is dependent on frequency range of operation and size of coaxial cable



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ISO-RU/RF:

High DC Current/AC Power + RF Auxiliary Service Isolation Inductor Assembly

- Pros
 - Provides robust static drain choke for the AM tower
 - Facilitates supply of DC current to multiple RRU units on the tower
 - Easy access for service and maintenance

ISO-RU-HYBRID:

Hybrid Fiber/Copper Conductor

- Pros
 - Highest noise immunity
 - Highest capacity in smallest load for AM tower
 - If a tower is already loaded with multiple isolation devices, Hybrid cable minimizes the additional load on the AM drive impedance
- Cons
 - Signal to fiber optic converters may be required
 - Most narrow range of applications – i.e. 4G networks
 - Cannot adjust cable length once it has been installed



WROK-AM, Custom Isocoil Installation