

## The Combined Times Newsletter - September 2019

[Home](#) | [Products](#) | [Contact Us](#)



EMR Machine is our full service precision CNC machine shop located in Phoenix, Arizona!

[CLICK HERE FOR MORE INFORMATION](#)

### MEET THE TEAM!

Billy Jack Vallejo is another long-time employee who has worked his way through our in-house machine shop and was promoted to Machine Shop Manager four years ago. He's a hands-on manager, always willing to contribute in any capacity the situation calls for. Our General Manager, Steve Broschious, understands that high performance employees are a critical part of our success and Billy represents this to a "T". Billy's hobbies and interest are hiking, all outdoor sports, and most importantly his wife and two children. Two of his fun family adventures are Airsoft shooting and rock hounding which is fun for the whole family and the children love navigating the courses and terrain. Billy is also a Grateful Dead super fan and goes to their concerts every chance he gets!

[More About Us!](#)

### PRODUCT SPOTLIGHT



**EMR SYS Series Compact Combiners** are single antenna systems including a transmitter combiner, receiver multicoupler and antenna duplexer. Using hybrid-ferrite technology a wide variety of difficult to combine frequencies can be

shared on a common antenna. These systems are available in 25W, 50W and 100W versions delivered ready for operation with no on-site tuning or adjustment required. Contact the factory for systems in different frequency bands with narrowed or expanded filter bandwidths and complex specialized combining.

- Compact: 3 RU Vertical Height for 25 W, 2, 3 and 4 CH.
- 8CH/100 W Power Applications: VHF, UHF, 700/800 MHz.
- Full Duplex, ideal for Digital RF Repeater Systems.

[UHF25442/SYS-50 Spec Sheet](#) | [Browse Category](#)

**EMR Filter-Ferrite Combiners** use space saving, High-Q square cavity resonators, and wideband isolators providing lower insertion loss than hybrid designs. Standard units are mounted to a 19 inch EIA rack. Multiple

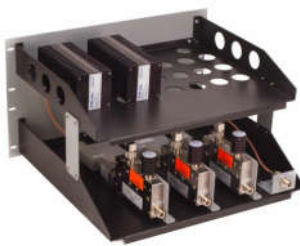


mounting and free standing configurations available.

- High-Q Square Cavities
- Low Insertion Loss
- 5 Year Warranty



[W65552/7C\(CS\) Spec Sheet](#) / [Browse Site](#)



**EMR Hybrid-Ferrite Combiners** combine multiple extremely close spaced frequencies to a common antenna. Our standard two to four channel hybrid-ferrite combiners occupy only 3.5 inch vertical rack space in a 19 inch EIA relay rack or cabinet. Hybrid configurations are

available in up to 8 channels and are capable of up to 125W per channel.

- Combines extremely close frequency spacings.
- Easily accommodates additional channels.
- Compact 19" EIA rack mount design.

[W25532 Spec Sheet](#) / [Browse Site](#)

Find us at the  
Wireless  
Leadership  
Summit Oct 2019!

[Click for details](#)

All EMR products are backed by **5 Year Warranty** and are proudly made in the USA!



## TECHINCAL RECAP

### Need More Channels?

*From: [Understanding Ferrite-Filter Transmitter Combiners](#), by William F Lieske Sr.*

Both (hybrid-ferrite and filter-ferrite) combiner types can be expanded to add more channels, provided that frequency spacings are suitable. This is mostly a matter of mechanics, since most popular licensed frequency allocations are in groups of five, spaced uniformly at 0.5 or 1.0 MHz. increments. Some systems use non-sequential frequencies, as authorized under FCC rules. The minimum spacing between adjacent channels must be considered in the combining plan.

Since, particularly in the 800 MHz. band, the most suitable cable lengths are relatively short (8 - 10 inches in length) in both designs, a practical arrangement of the cavities and isolators is often very difficult to devise when adding channels to an existing system.

Some combiner manufacturers feature "field expandable" combiners. It turns out, however, that unless the user's technical capabilities and instrumentation is adequate, the combiner must be returned to the factory for expansion and re-optimization to insure proper long term performance.

[Read More](#) / [EMR Technical Articles](#)

## UPCOMING EVENTS



Wireless Leadership Summit  
Dallas, TX - October 23-24 2019  
[Click here to register](#)