



President's Column

We Are MTT

■ Gregory Lyons

The IEEE Microwave Theory and Techniques Society (MTT-S) selected a tagline in 2017 after a couple of years of discussion. The tagline (“MHz To THz Community”) adds to the branding of the MTT-S (Figure 1). Our choice is descriptive of what we do and who we are and now supplements our “magic tee” logo (Figure 2).

What is MTT? Who is MTT? The second question seems more appropriate to an MTT-S volunteer. Consider the following sentences: 1) The MTT-S holds its annual symposium in May or June. 2) MTT holds our annual symposium in May or June.

An MTT-S volunteer would tend to say the second. Although the first sentence is proper English, it seems a bit cold and distant compared to the second. MTT-S is an abbreviation for the proper name of our Society and drops into a sentence to replace that

MHz TO THz COMMUNITY

Figure 1. The MTT-S tagline.

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name. MTT is something different. We will call MTT a *proper mass noun*, requiring no article (*the*) out front. Then let us explore the question “Who is MTT?” and the collective identity of MTT.



Figure 2. The MTT-S “magic tee” logo.

MTT is very much like a family. One of our former MTT-S

Administrative Committee (Ad-Com) colleagues who had worked with the AdCom of another Society commented on how impressive it was that members of the MTT-S AdCom seemed to be able to set aside their egos to pursue Society business. Like a family, we do not always agree, but we endeavor to pursue administrating the Society for the common good.

So we are an MTT family. However, the word *family* is probably not the greatest choice for MTT-S branding purposes. Maybe something close would work. In the 2015 time frame, we were committed to finding a good tagline.



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MTT Community

Credit goes to Jim Rautio for being the first to suggest "MHz To THz Community" as the MTT-S tagline. Significantly, Jim pointed out to the MTT-S AdCom at our summer meeting in May 2016 the meanings of the word *community*:

- 1) a group of people having a particular characteristic in common
- 2) a feeling of fellowship with others as a result of sharing common attitudes, interests, and goals.

It was both the second meaning of community and the fact that MHz To THz can be abbreviated to MTT that sealed the deal for our MTT-S tagline. Thanks, Jim!

Before the selection of this tagline, quite a few AdCom members resisted having any tagline at all. After all, the MTT-S had existed for more than 60 years without one. Yet, once "MHz To THz Community" was selected, it was fully embraced by all AdCom members. The tagline is indeed compelling.

History of the MTT-S Magic Tee Logo

The other part of our MTT-S branding is the magic tee logo. The *IEEE Group*

on *Microwave Theory and Techniques (G-MTT) Newsletter* was first published on 10 September 1954. Some 15 years later, the newsletter announced the G-MTT symbol contest. Numerous entries were received, and the one getting the most votes came from Raymond A. Patrin, with Robert E. Putre's magic tee coming in a close second [1].

Ultimately, legal (trademark) conflicts with the IEEE kite logo made Patrin's entry unfeasible, and so Putre's design was the winning logo. Thus, the now-famous magic tee motif became the official MTT-S logo, appearing on the cover of the newsletter in October 1970. Since that time, the logo has taken on great meaning and become a source of pride throughout the Society and among its members.

What is a magic tee? It is a 180° hybrid power divider implemented using a tuned four-port waveguide, originally developed during World War II and first reported in a publication by W.A. Tyrrell of Bell Labs [2]. The magic comes from the way it prevents signals from propagating between certain ports under specific matching conditions. This allows it to be used as a duplexer; e.g., in a radar

system, it can be used to isolate the transmitter and receiver while sharing the antenna.

I would like to acknowledge Sherry Hess and Ramesh Gupta of our AdCom Marketing and Communications Committee for capturing all of the elements of our current MTT-S branding in detail. The newly released *The MTT-S Brand—IEEE MTT-S Brand Book* [3] describes the use of the MTT-S brand elements and is consistent with the IEEE branding guidelines.

The MTT-S is a very active IEEE Society. I encourage you to visit our website, www.mtt.org, for more information. If you would like to be involved as a volunteer, fill out a contact form at www.mtt.org/connectme, and we will make sure you get connected.

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