North Texas NTMS Microwave Society

Mats KD5FZX machining WR42 to 26.5 GHz SMA Transitions

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Steps in manufacturing

- Obtain block aluminum
- Mill channel
- Slice aluminum material
- Drill capture holes that make 2 parts merge
- Mill opening for 26.5 GHz SMA connector
- Drill hole for 26.5 GHz SMA connector
- Thread 26.5 GHz SMA connector
- Assemble transition
- “Tune” for Return Loss

Video of process

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https://youtu.be/ckQoozekEW4?si=7XlnUiJN_qhQAAJy

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Mats transitions

Gen 1 WR42 to 26.5 GHz transitions

Mats transitions

Gen 2 WR42 to 26.5 GHz transitions

Mats transitions

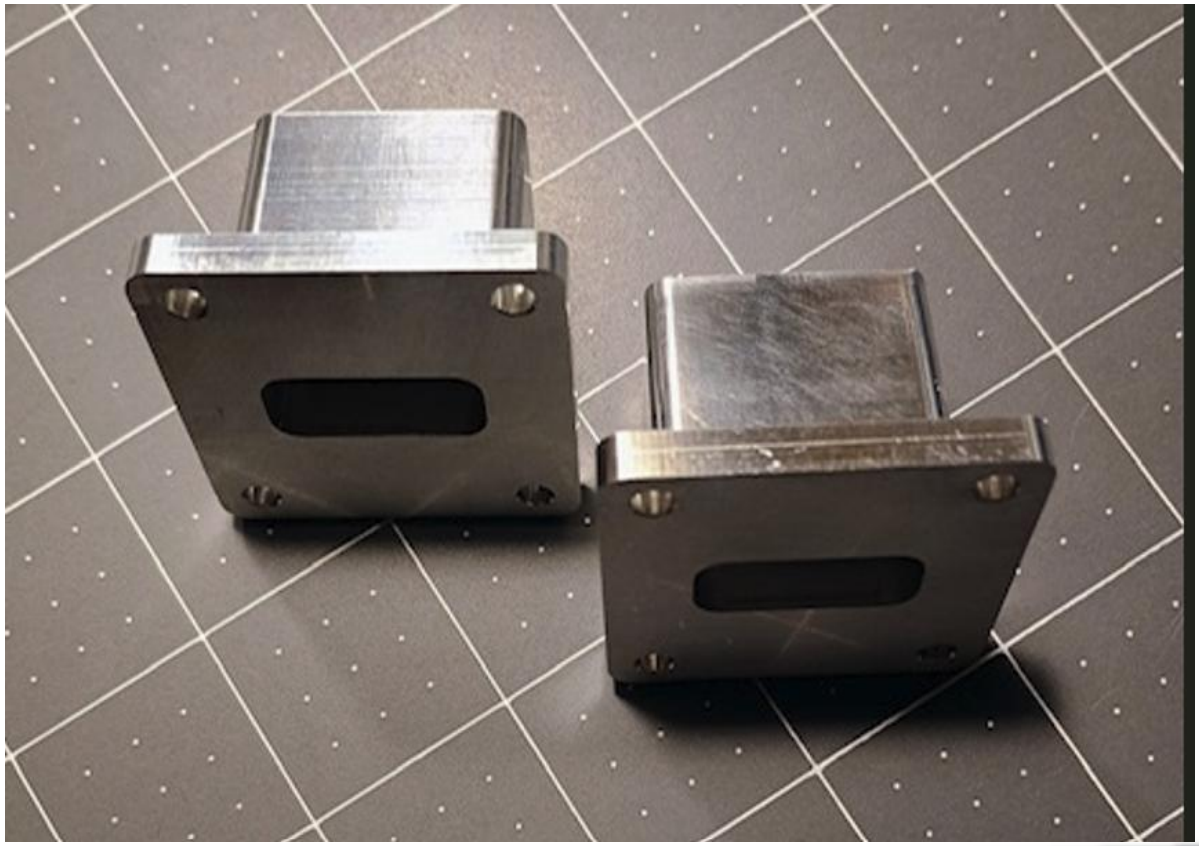
Gen 2 WR42 to 26.5 GHz transition

Mats transitions

WR90 to SMA transitions

Mats transitions

WR90 to SMA transitions



RL measurement at 24 GHz

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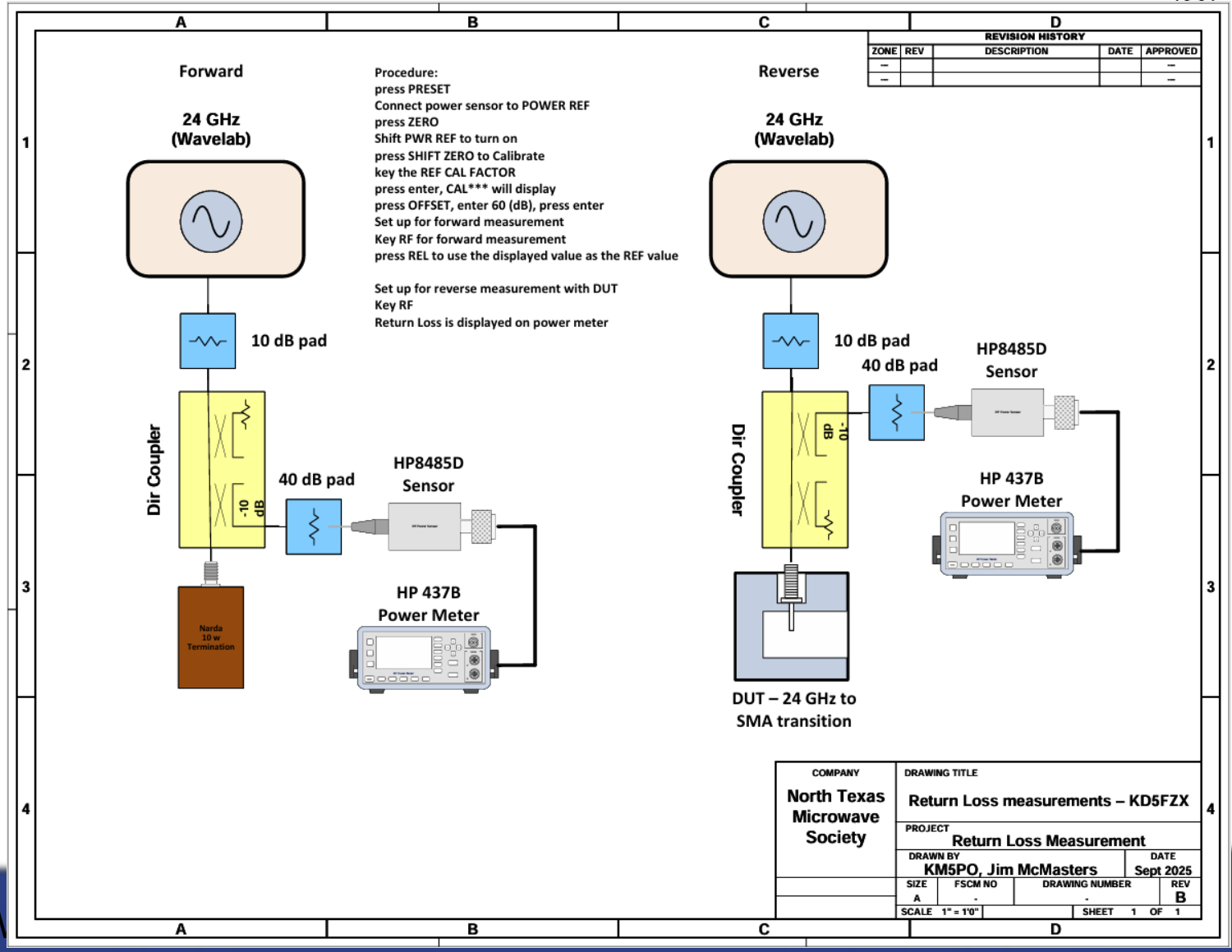

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Questions?