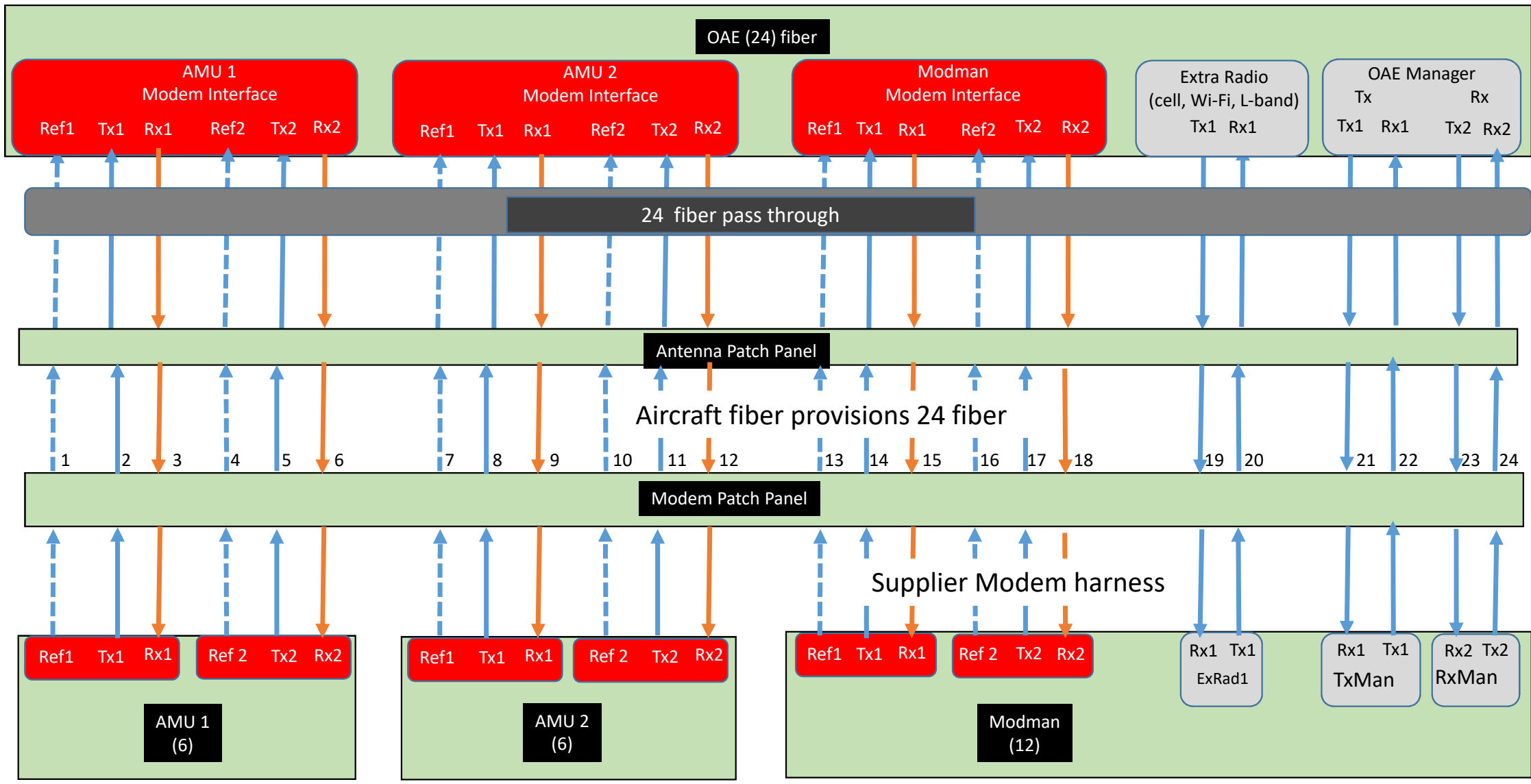


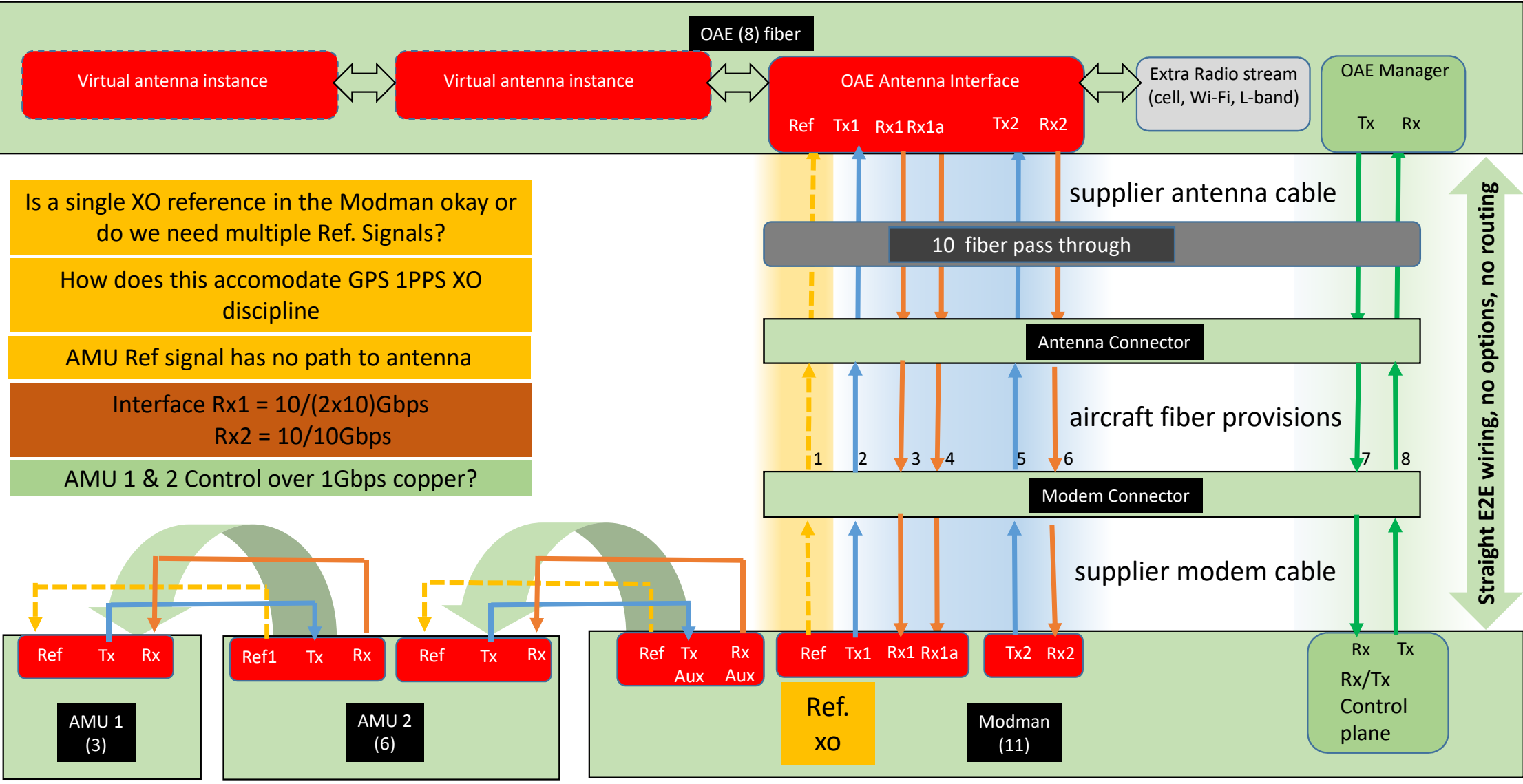
A792 Fiber Schematic

V10 – dissolve modem-antenna-allocation, DIFI network

17.March.2022



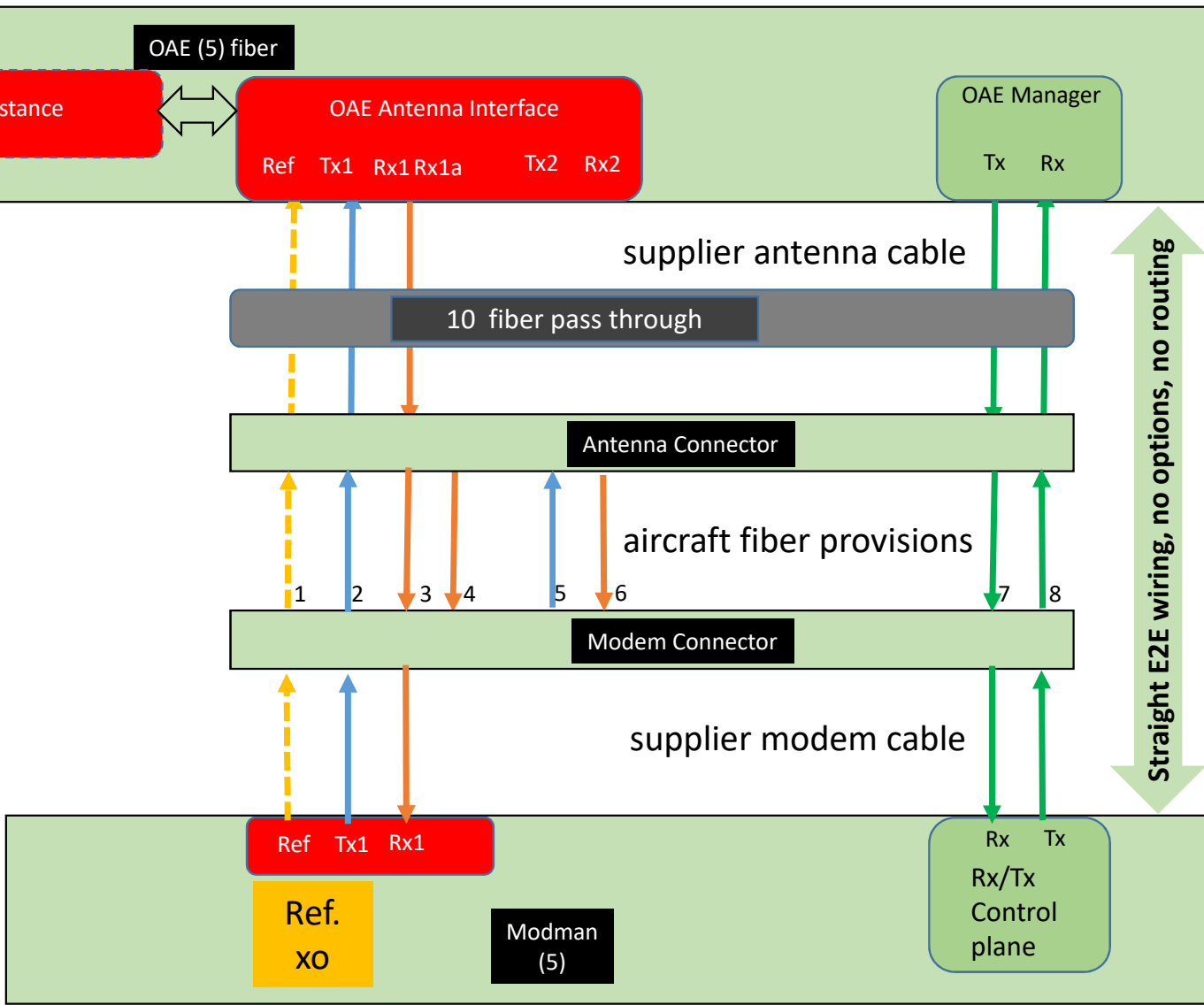
Tx and Rx: Digital Transport Network (e.g. VITA49.2 / DIFI)



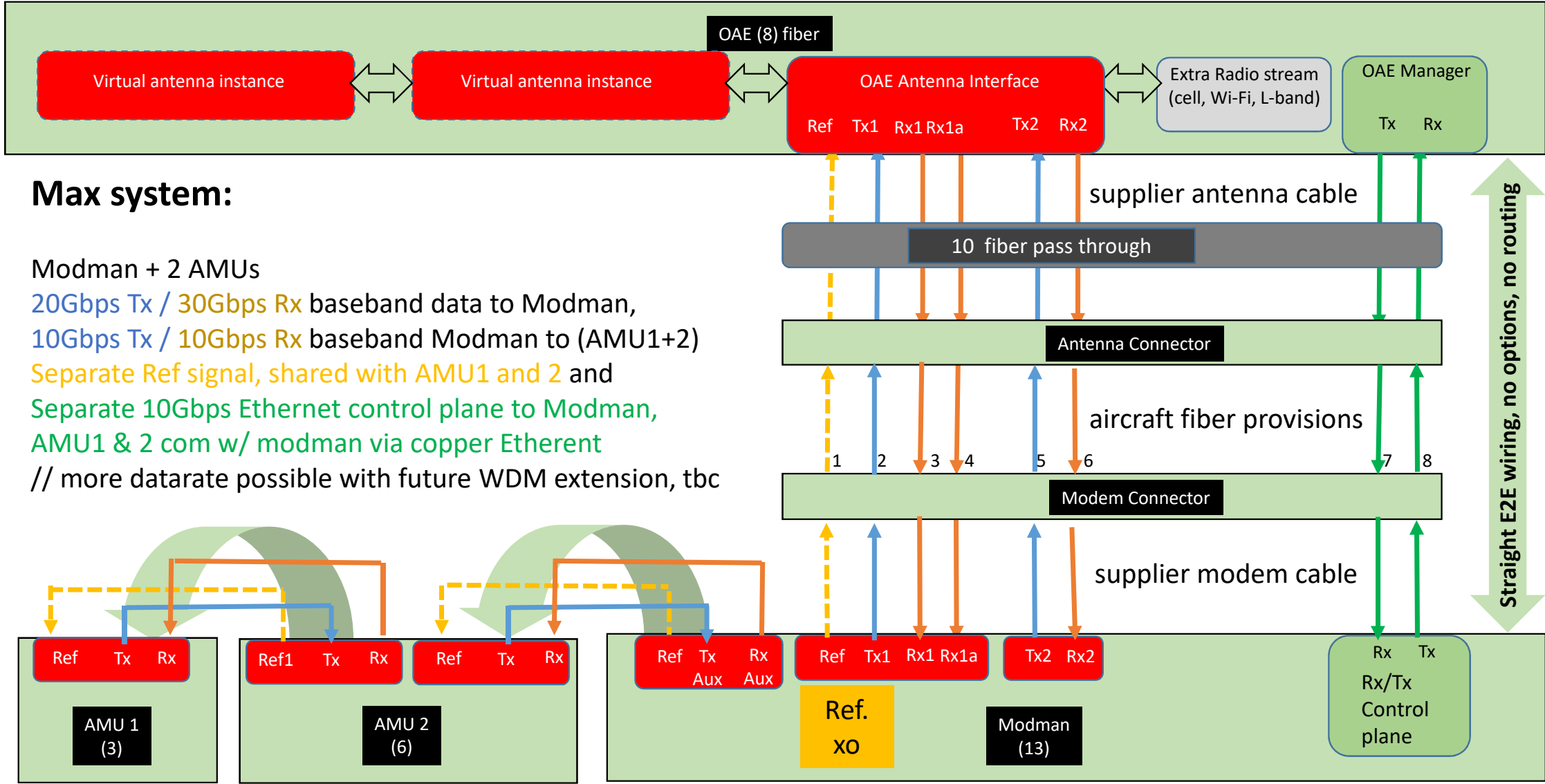
Tx and Rx: Digital Transport Network (e.g. VITA49.2 / DIFI)

Minimum viable system:

Single Modman / OAE Interface,
10Gbps Tx / 10Gbps Rx baseband data,
Separate Ref signal and
Separate 10Gbps Ethernet control plane,
Full AC provisions.



Tx and Rx: Digital Transport Network (e.g. VITA49.2 / DIFI)



Max system:

Modman + 2 AMUs
 20Gbps Tx / 30Gbps Rx baseband data to Modman,
 10Gbps Tx / 10Gbps Rx baseband Modman to (AMU1+2)
 Separate Ref signal, shared with AMU1 and 2 and
 Separate 10Gbps Ethernet control plane to Modman,
 AMU1 & 2 com w/ modman via copper Ethernet
 // more datarate possible with future WDM extension, tbc

Agenda proposal:

1.) RF over Fiber vs fully digital architecture

- resolving fixed modem/antenna allocation?

2.) Synchronization Architecture

- How distribute ref. Signals
- Mixer and scan frequencies
- Discipline 1PPS – not via fiber?
- AMU reference signals

3.) Data transport layer

- number of fibers, demand
- channel aggregation

4.) Control network

- Requirements
- How to include AMU control needs?
- Ref signal discipline via Ethernet?

