1) Rx over all characteristics

Test setup

Input

```
Network Analyzer        Output              P2                          T2      Z=100 Ω        Matching circuit
(Homebrew)                                                             1pin                    (15dB ATT)

                                                                                         200 Ω          Z=50 Ω
                                       6m Frontend
                                       (stand alone)                             180 Ω          62 Ω

                             P6          P14          P3
                             (3V)       (PTT#)      (E12V)

                                         Open        Open

                          Power
                          Supply
                          (3V)
```

Result

6m Frontend Rx over all characteristics : P2 → T2 1pin

BPF characteristics (I measured when assembled) ; C10 - C16 , No PE4259
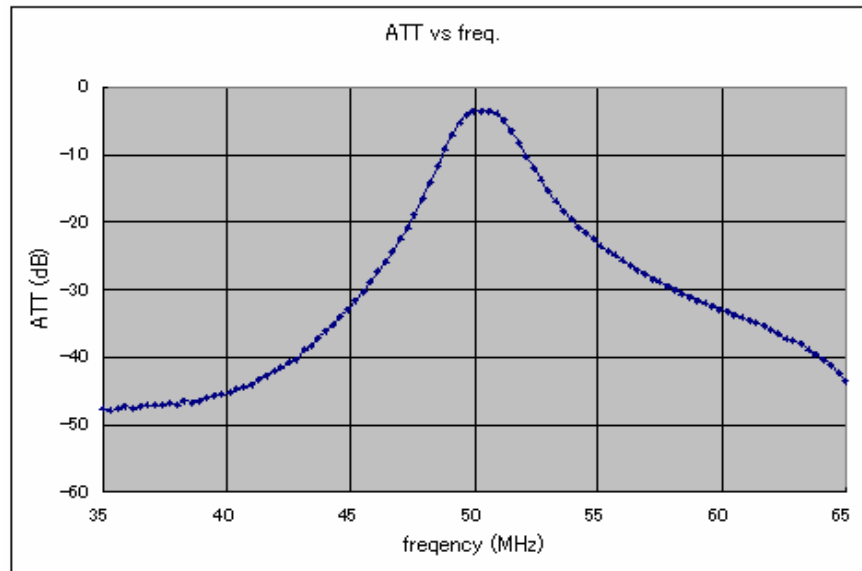
Almost same.
No problem

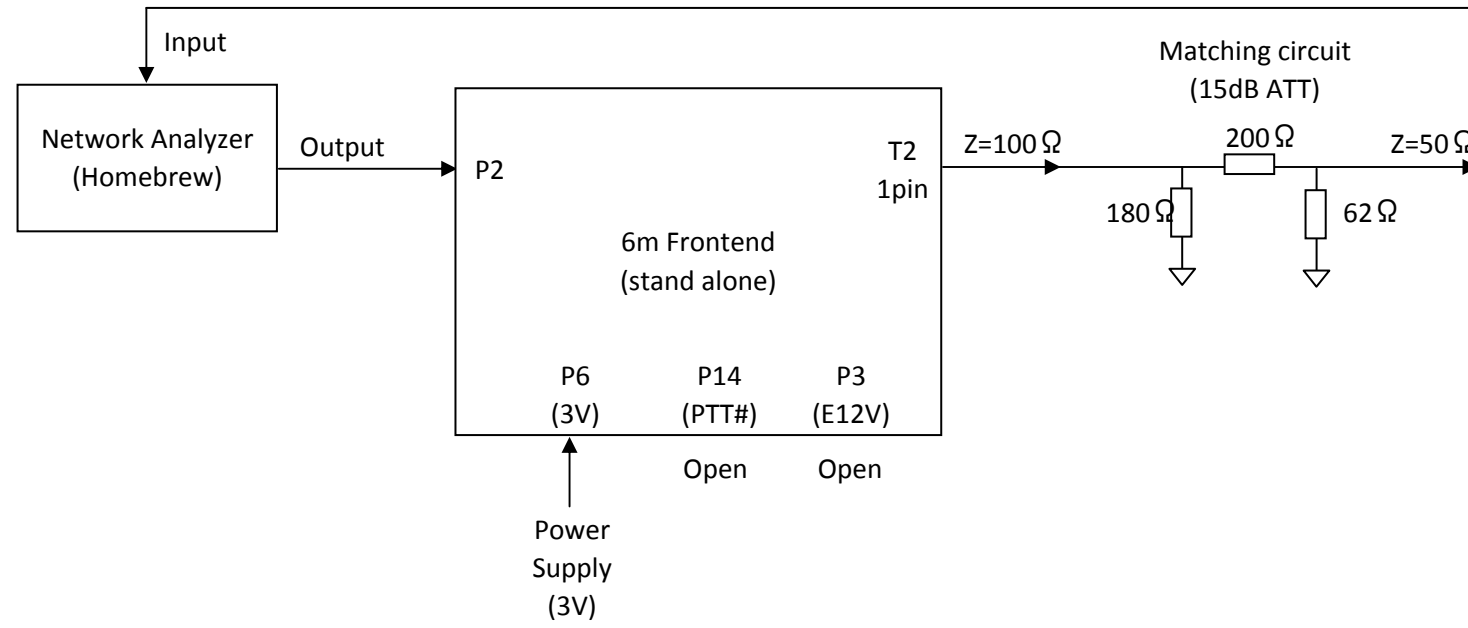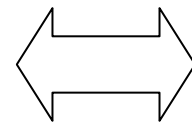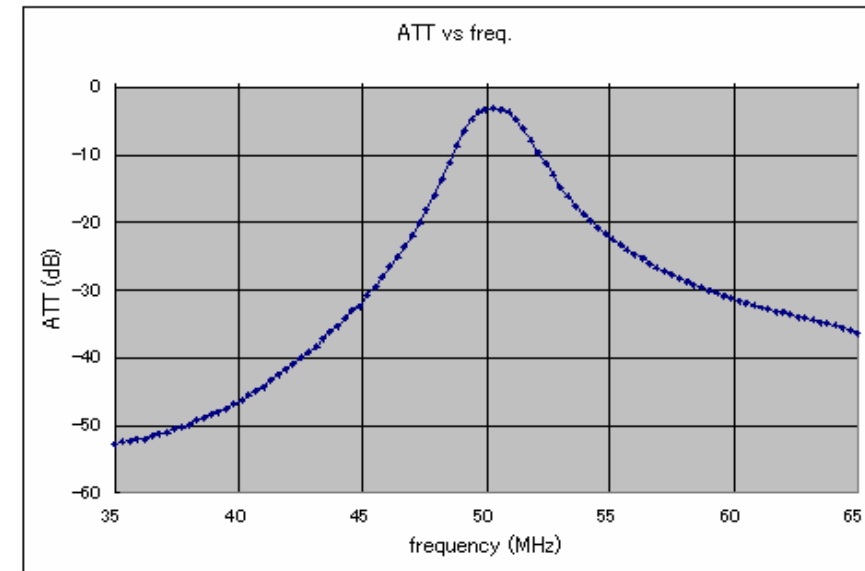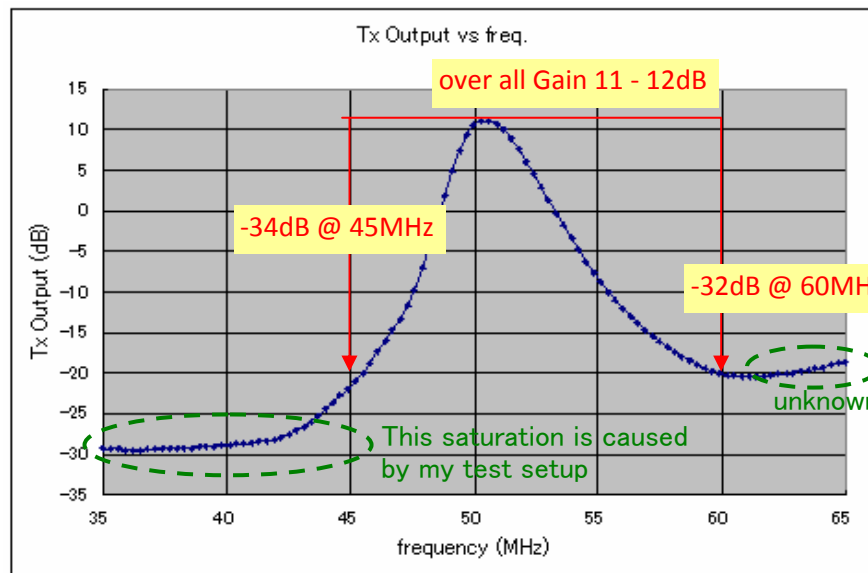## 2) Tx over all characteristics

Test setup
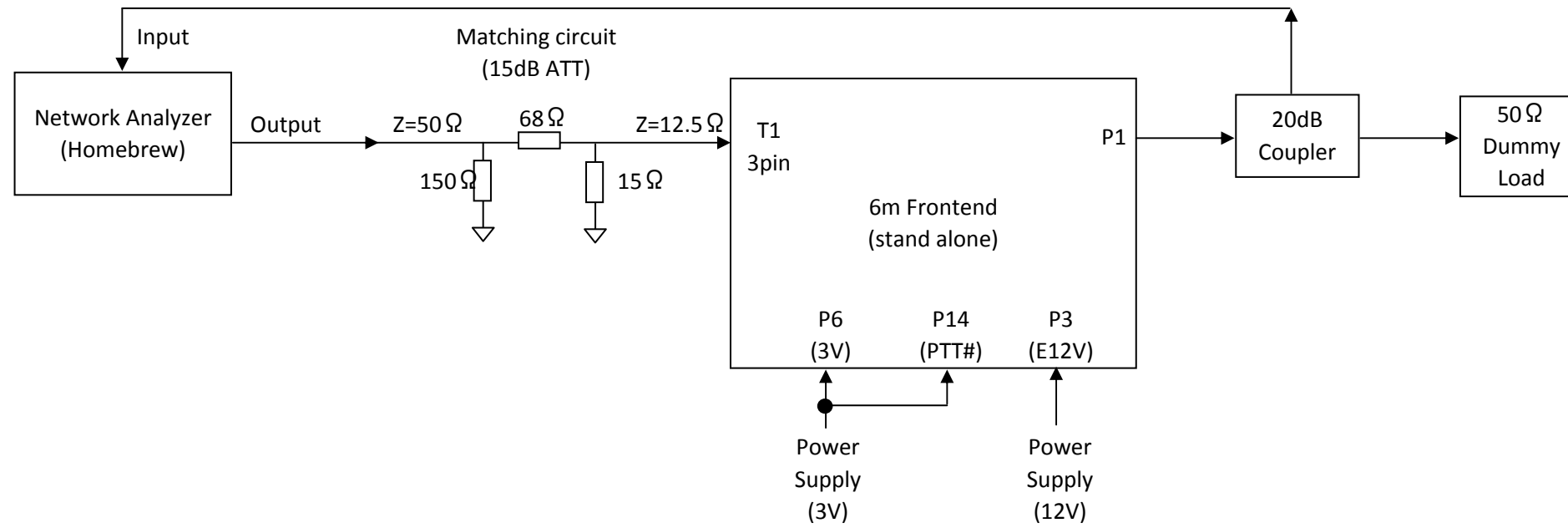
Result

6m Frontend Tx over all characteristics : T1 3pin → P1

over all Gain 11 - 12dB

-34dB @ 45MHz

-32dB @ 60MHz

This saturation is caused by my test setup

unknown

Seems
No problem

BPF characteristics (I measured when assembled) ; C10 - C16 , No PE4259

-28dB @ 45MHz

-28dB @ 60MHz

series

PZT2222A amp gain : 14-15dB

Diplexer characteristics (I measured when assembled) ; R5 - R8 , No T1 and R7

-5dB @ 45MHz

-6dB @ 60MHz

3) Tx system over all

```
┌──────────┐     ┌──────────┐        ┌──────────────────────────────┐     ┌──────────┐     ┌──────────┐
│    PC    │────▶│Hermes-Lite│──────▶│CN1                         P1│────▶│  50Ω     │────▶│  Scope   │
│ PowerSDR │     │  v1.22   │        │                              │     │  Dummy   │     │          │
└──────────┘     └──────────┘        │      6m Frontend             │     │  Load    │     └──────────┘
                                     │                              │     └──────────┘
                                     │                              │
                                     │   P6      P14      P3        │
                                     │  (3V)    (PTT#)   (E12V)     │
                                     └──────────────────────────────┘
                                        Open     Open      ▲
                                                           │
                                                        Power
                                                        Supply
                                                        (12V)
```

TUNE mode
Drive Level : 100
Frequency : 18.5(55.22)MHz ⟶ 28.5(45.22)MHz

Tx Output vs freq.
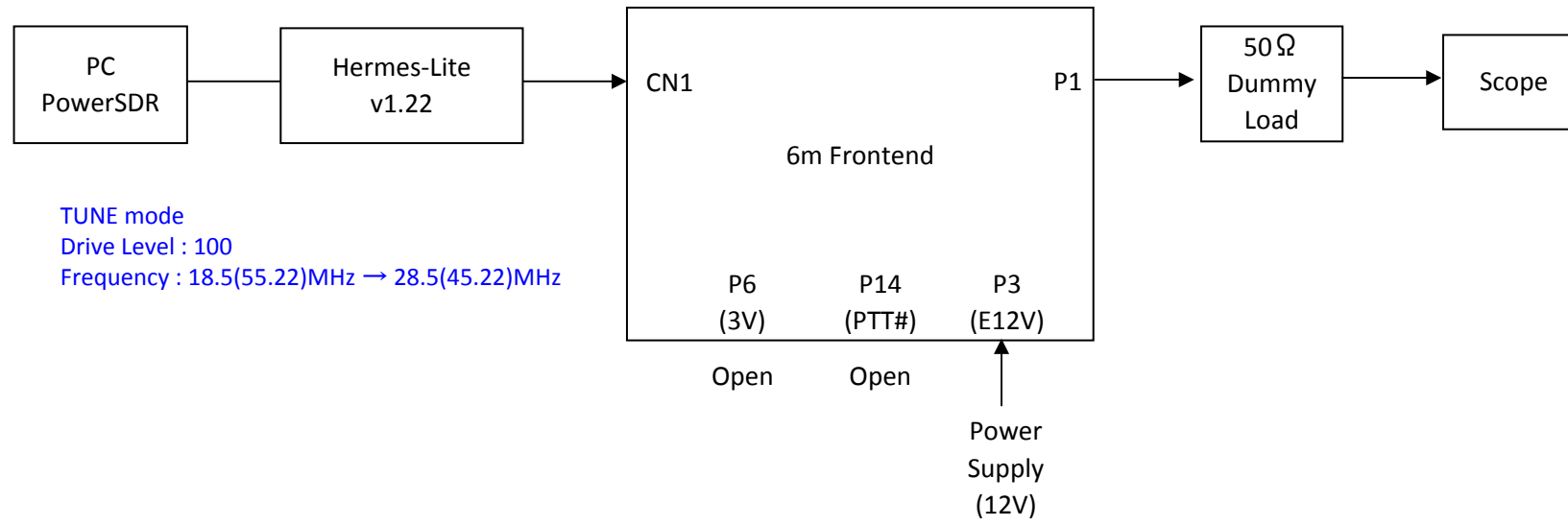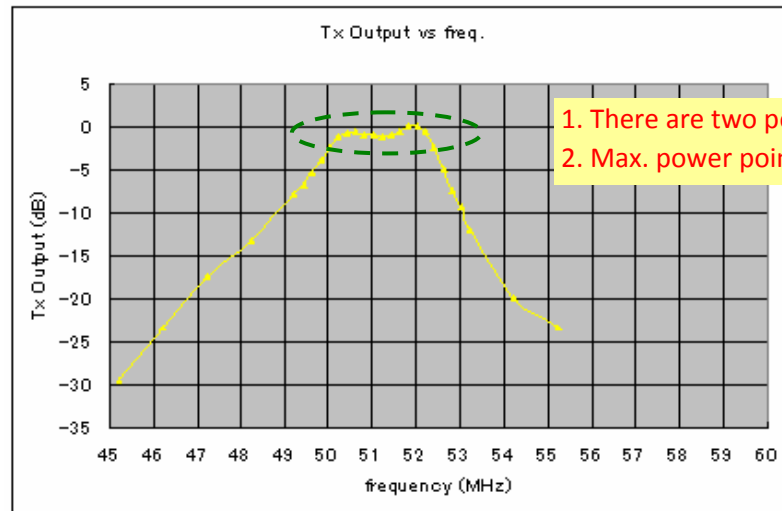
1. There are two peaks. Why ?
2. Max. power point is shifted higher frequency, at 52MHz Why ?

Power SDR issue or others ?