# D1500297-v8

## Electrical signals in HAM5/HAM6 T1700019

**OPO cavity**
1 x Oven translation stage, PZT driven
1 x Peltier heater
3 x Thermistor, possibly more
2 x Cavity PZT, avoid crosstalk with oven

**VOPO Injection Platform**
2 x DCPD
1 x Lens translation stage, PZT driven

**Suspensions**
VOPO 6 x aOSEM
SQZ_TT1 4 x BOSEM HAM6
SQZ_TT2 4 x BOSEM HAM5

Beam diverter relocated

## SQZT6 active elements

Diodes (see T1600605)
PDA100 PD (#1, PD3)
Unamplified monitor PDs (#2, DC9-10)
LSC RF PDs (#2, CLF 2f and OPO REFL)

Cameras (#2, IT_TRANS and OPO TRANS)
Motorized waveplates (#1)
Uniblitz shutter (#1)

## ISCT6 active elements

Diodes (see T1600605)
PDA100A PDs (#2, PD1 and PD2)
Unamplified monitor PDs (#8, DC1-8)
BBPD (#1, SHG BBPD)
1611 (#1, FSS1 1611)

PZTs (#2, PZT1 and PZT2)
Cameras (#2, AS_AIR and SHG TRANS)
Motorized waveplates (#9)
Motorized flippers (#4, MF)

Squeezing components in HAM6

ISCT6 side

Beam-Splitter side

3.125 MHz
SQZ Angle Control
To Laser
42.375 MHz
Alignment Control
To Tip-Tilts

IFO beam
+ squeezed beam

OMC
OMC Diodes
ASC WFS Diodes
45.5-3.125 = 42.375 MHz

VOPO Injection Platform
CLF beam
OPO PZT
OPO pump
Y oven on stage
Tens on stage

SQZ_TT2 in HAM5

BDV1

Squeezed beam and CLF field to IFO

SQZ_TT1

OPO REFL

CLF and OPO TRANS

Squeezed beam to homodyne (diagnostic)

## ALS fiber distribution
(beams from PSL table)

E1200138

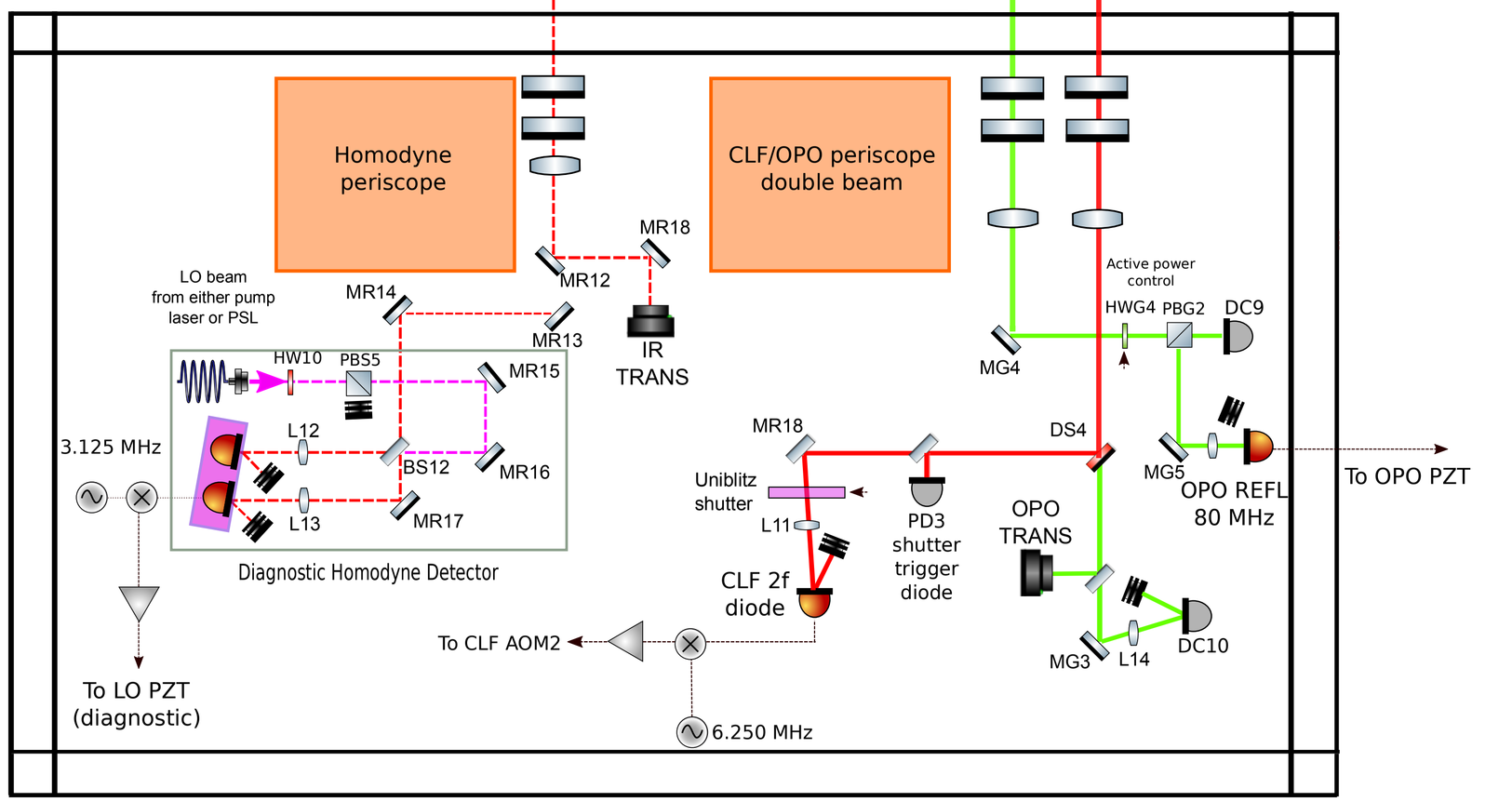
PSL sample (after RFC)

SQZ LO (diagnostic)

AF13 AF14 AF15 A2F3 A2F4 A2F5

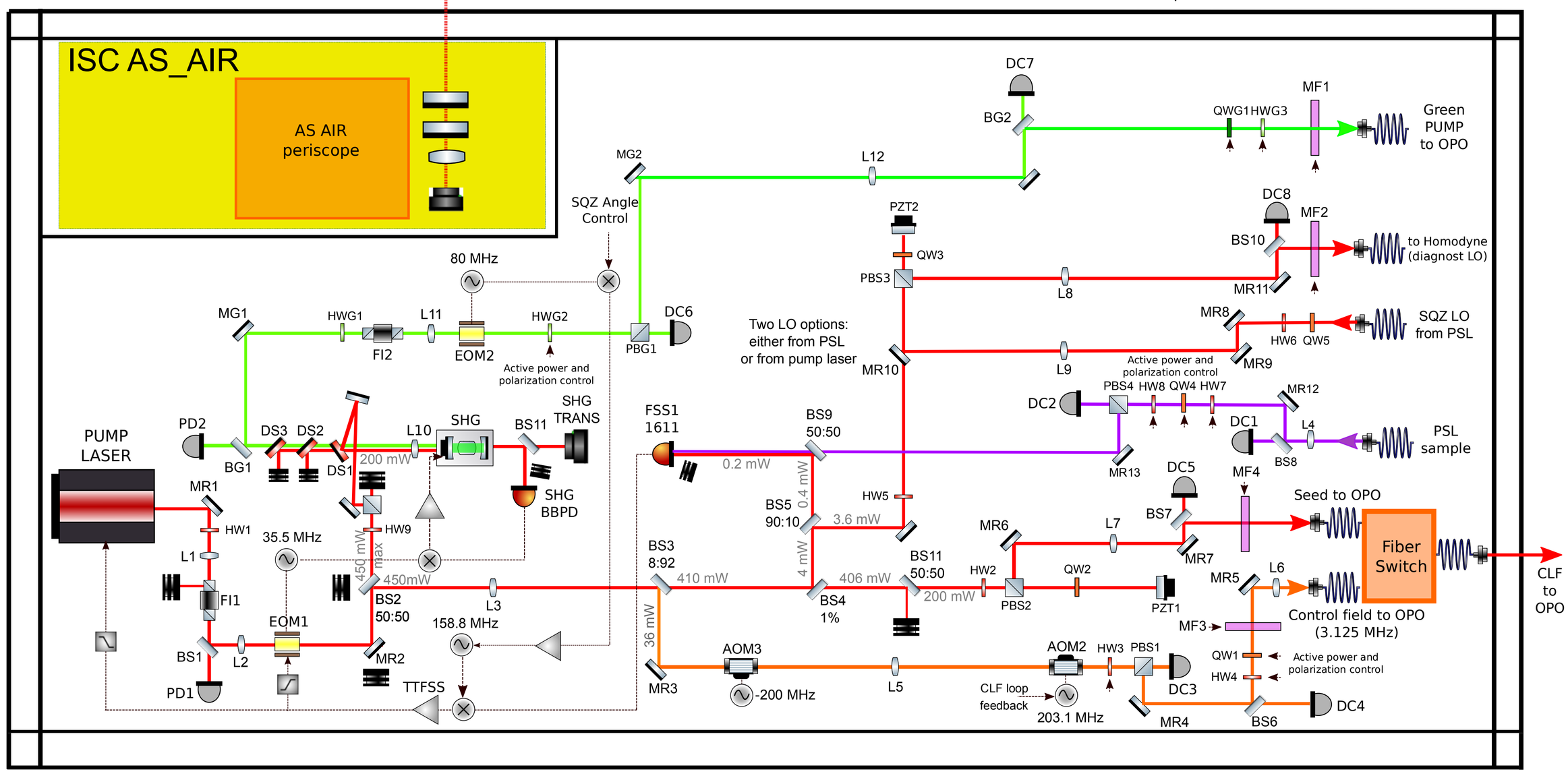
OMC TRANS camera on viewport

ISCT6, 4' x 8'




SQZT6, 3' x 5'

## Legend

MR High Reflector 1064nm
MG High Reflector 532nm
L Lens (dual AR coated)
BS Beam Splitter 1064nm
BG Beam Splitter 532 nm
DS Dichroic mirror (HR 1064nm, HT 532nm)
HW Half-waveplate 1064nm
QW Quarter-waveplate 1064nm
HWG Half-waveplate 532nm
QWG Quarter-waveplate 532nm

PBS Pol Beam Splitter 1064nm
PBG Pol Beam Splitter 532nm
DC Monitoring DC diode
MF Motorized flipper
Motorized element