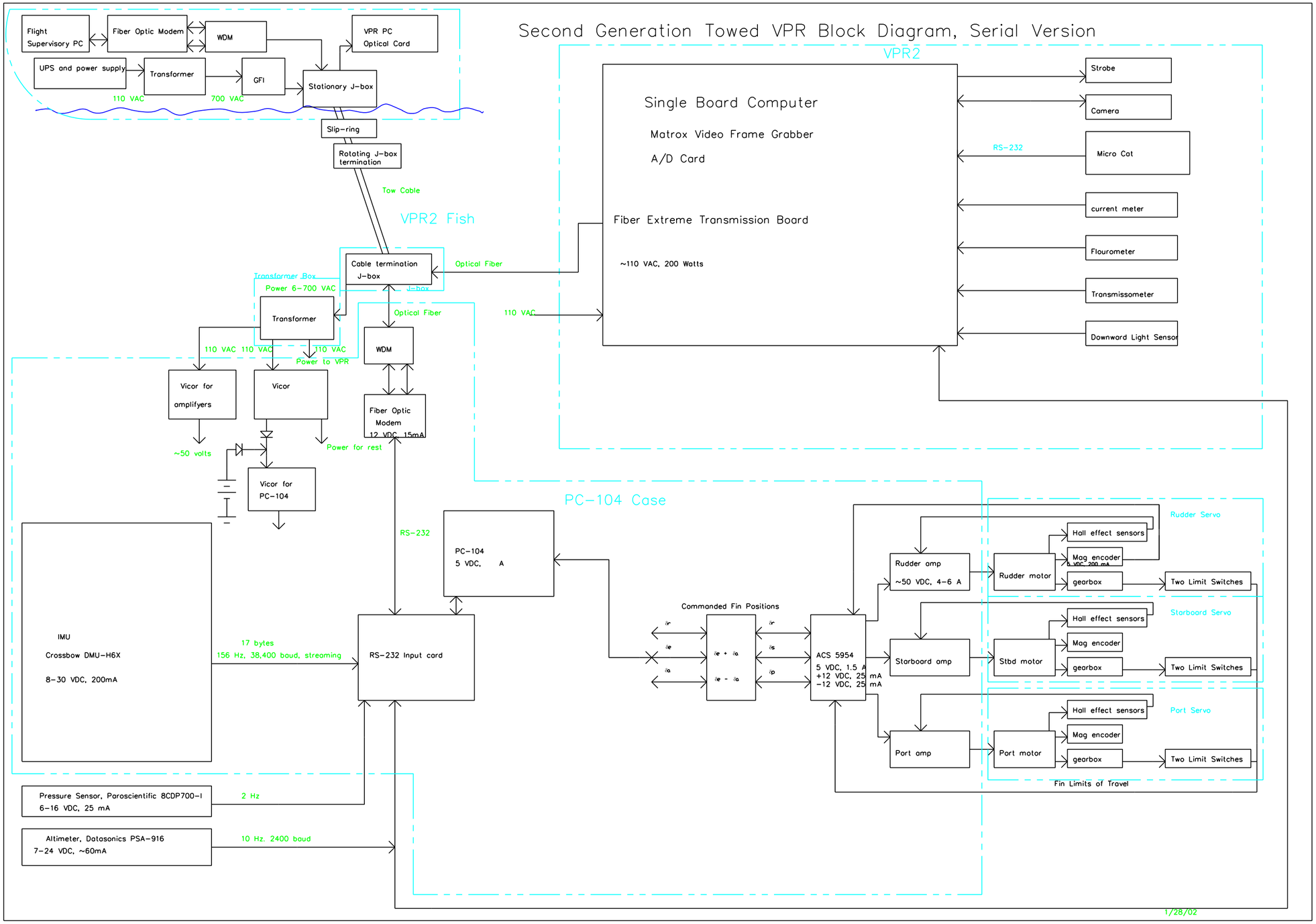
Second Generation Towed VPR Block Diagram, Serial Version
Flight Supervisory PC
Fiber Optic Modem
WDM
VPR PC Optical Card
UPS and power supply
Transformer
GFI
Stationary J-box
110 VAC
700 VAC
Slip-ring
Rotating J-box termination
Tow Cable
VPR2 Fish
Cable termination J-box
Optical Fiber
Transformer Box
Power 6-700 VAC
J-box
Transformer
Optical Fiber
110 VAC 110 VAC
110 VAC
Power to VPR
WDM
Vicor for amplifyers
Vicor
Fiber Optic Modem 12 VDC, 15mA
~50 volts
Power for rest
Vicor for PC-104
VPR2
Single Board Computer
Matrox Video Frame Grabber
A/D Card
Fiber Extreme Transmission Board
~110 VAC, 200 Watts
110 VAC
Strobe
Camera
RS-232
Micro Cat
current meter
Flourometer
Transmissometer
Downward Light Sensor
PC-104 Case
RS-232
PC-104
5 VDC, A
IMU
Crossbow DMU-H6X
8-30 VDC, 200mA
17 bytes
156 Hz, 38,400 baud, streaming
RS-232 Input card
Commanded Fin Positions
ACS 5954
5 VDC, 1.5 A
+12 VDC, 25 mA
-12 VDC, 25 mA
Rudder amp
~50 VDC, 4-6 A
Starboard amp
Port amp
Rudder Servo
Hall effect sensors
Mag encoder
5 VDC, 200 mA
Rudder motor
gearbox
Two Limit Switches
Starboard Servo
Hall effect sensors
Mag encoder
Stbd motor
gearbox
Two Limit Switches
Port Servo
Hall effect sensors
Mag encoder
Port motor
gearbox
Two Limit Switches
Fin Limits of Travel
Pressure Sensor, Paroscientific 8CDP700-I
6-16 VDC, 25 mA
2 Hz
Altimeter, Datasonics PSA-916
7-24 VDC, ~60mA
10 Hz, 2400 baud
1/28/02