



- Drawing Index:
- PM-E1000 General Wiring Diagram
 - PM-E1001 Primary Air-to-Ground Wireless Video Wiring Diagram
 - PM-E1002 Secondary Air-to-Ground Wireless Video Wiring Diagram
 - PM-E1003 I-Gate Station Wiring Diagram
 - PM-E1004 UHF Wireless Video Wiring Diagram
 - PM-E1005 Video Receive, Select, and Stream Wiring Diagram
 - PM-E1006 GPS and PulseOx to APRS Transmitter Wiring Diagram
 - PM-E1007 Weather Station Wiring Diagram
 - PM-E1008 Jumper 2-Way Radio Communications Wiring Diagram
 - PM-E1009 Jumper HF Communications Wiring Diagram
 - PM-E1010 Slow Scan Television SSTV Camera Wiring Diagram

Note: Dazzle cannot feed audio into video stream.

Reference to 5.8 GHz A/V transmitter:

Black Mamba TX5820-V2 5.8 GHz A/V transmitter frequencies

Band	Ch 1	Ch 2	Ch 3	Ch 4	Ch 5	Ch 6	Ch 7	Ch 8
A	5865	5845	5825	5805	5785	5765	5745	5725
B	5733	5752	5771	5790	5809	5828	5847	5866
E	5705	5685	5665	5645	5885	5905	5925	5945
F	5740	5760	5780	5800	5820	5840	5860	5880

Differences between RP and non-RP connectors

	RP plug	RP jack	non-RP plug	non-RP jack
Screw	inside	outside	inside	outside
Pin	no	yes	yes	no
Hole	yes	no	no	yes



Lumenier RX5GDR V2 48CH 5.8G AV Diversity Receiver Item #4278
<https://www.getfpv.com/lumenier-rx5gdr-5-8g-av-diversity-receiver-with-raceband.html>

48 channels: Covers A, B, E, F, R and D bands, 5362-5945MHz
 2x Diversity SMA Antenna connectors, separate A/V output A or B, or diversity output
 Compatible with Lumenier, Fatshark, ImmersionRC, Boscama, Foxtech and other generic branded FPV transmitters within the same frequency range.

Lumenier RX5GDR-V2 receiver frequencies

Band	Ch 1	Ch 2	Ch 3	Ch 4	Ch 5	Ch 6	Ch 7	Ch 8
Band 1 A	5865	5845	5825	5805	5785	5765	5745	5725
Band 2 B	5733	5752	5771	5790	5809	5828	5847	5866
Band 3 C	5705	5685	5665	5645	5885	5905	5925	5945
Band 4 D	5740	5760	5780	5800	5820	5840	5860	5880
Band 5 E	5658	5695	5732	5769	5806	5843	5880	5917
Band 6 F	5362	5399	5436	5473	5510	5547	5584	5621

**Band 4 D-FS/IRC
 Band 5 E-Raceband
 Band 6 F-Diatone**



Operating Instructions

Manual A Manually set frequency for A Receiver.
 Long press "Channels" button to change band. Short press to change channel.

Manual B Manually set frequency for B Receiver.
 Long press "Channels" button to change band. Short press to change channel.

Auto A Auto search frequency for A Receiver.
 Long press "Channels" button to search active frequencies.
 Short press to cycle through active channels.

Auto B Auto search frequency for B Receiver.
 Long press "Channels" button to search active frequencies.
 Short press to cycle through active channels.

Comp A Auto Auto search frequencies for A and B Receivers (Diversity Mode).
 Long press "Channels" button to search active frequencies.
 Short press to cycle through active channels.

Comp A Manual Manually set frequencies for A and B Receivers (Diversity Mode).
 Long press "Channels" button to change bands.
 Short press to change channels.

Note: The auto search feature may find multiple channels that are close to the transmitting frequency. Make sure to cycle through to the correct channel.

IBCrazy 5.8 GHz 13dBic Pepperbox Antenna (RHCP)
 Item #2743 Manufacturer: Video Aerial Systems
<https://www.getfpv.com/fpv/antennas/ibcrazy-5-8-ghz-13dbic-pepperbox-antenna.html>
 • Gain: 13dbic • Axial ratio: 1.0
 • Beam width: 160 degrees • Beam height: 60 degrees



IBCrazy 5.8 GHz Mad Mushroom Antenna (RHCP)
 Item #1567 Manufacturer: Video Aerial Systems
<https://www.getfpv.com/ibcrazy-5-8-ghz-mad-mushroom-antenna.html>
 • Gain: 1.5dbi • Axial ratio: 0.73 • Beam width: very wide band
 • Can be used as both transmit and receive antenna



REV	DATE	REVISION DESCRIPTION	DRAWN	APP
8	3-20-18	Replaced Crosshair antenna with Mad Mushroom omni antenna.	MF Wright	
7	3-16-18	Replaced 5.8 GHz receiver with Lumenier and IB Crazy antennas as recommended by Jason Howard K6DGN	MF Wright	
6	8-19-16	Re-arranged video inputs, changed LZ camera to 427 MHz.	MF Wright	
5	10-14-15	Changed note that 5.8 GHz antenna is large dish antenna.	MF Wright	
4	10-13-15	Updated drawing numbers.	MF Wright	
3	10-6-15	Corrected drawing numbers.	MF Wright	
2	10-5-15	Added specs and instructions for RC832 receiver.	MF Wright	
1	10-2-15	Added freq info on other A/V units, changed consultant.	MF Wright	
0	10-1-15	initial release	MF Wright	

PARACHUTE MOBILE "In The Air, On The Air"
www.parachutemobile.org

Parachute Mobile Communication Systems
Video Receive, Select, and Stream Wiring Diagram

DRAWN MF WRIGHT	CHK	INDEX	FSCM. NO.	LIMITS UNLESS NOTED
DESIGN ENGR MF WRIGHT	TEAM POSITION Video Ops		DATE 3-20-18	
NEXT ASSY	USE ON	CONSULTANT Jason Howard	AS DWG NO Sheet 1 of 1	REV
APPLICATION		TEAM COORDINATOR R. FENN	SCALE NONE	PM-E1005

8