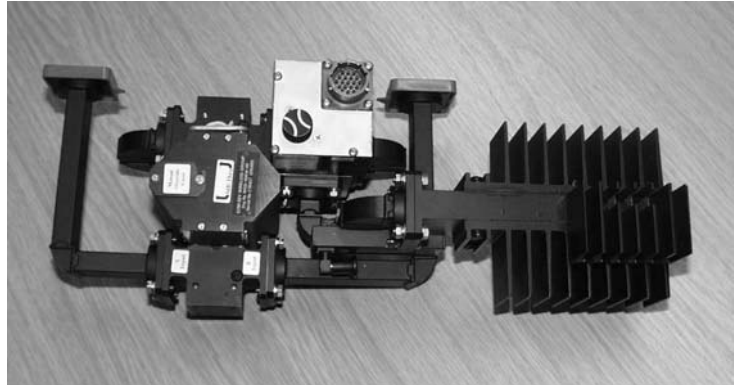


## FEATURES

- **Redundant Switching** Provides full redundant switching of two *Stellar* HPAs at power levels up to 200 W per channel. Either HPA can be switched to antenna or load.
- **Phase Combining** Provides the combined output power of two *Stellar* HPAs into the antenna output port or load termination.
- **Integral 400 W Load** Provides termination on load port to enable combined powers of two *Stellar* HPAs to be dissipated.
- **RS422/RS485** serial port for remote control.
- **Interconnecting Waveguide** between each HPA and the CRCA is provided, together with the RF input splitter, line stretcher and electrical cables to the HPAs (see note).
- **Control Unit** rack mountable, only 2U high.



## SPECIFICATION

(Excluding external components)

### Electrical

Frequency range . . . . .	12.75 to 14.5	GHz
Power handling . . . . .	200 W/channel	
Return loss . . . . .	23	dB min
Insertion loss . . . . .	0.35	dB max
Isolation:		
combined mode . . . . .	25	dB min
1:1 mode . . . . .	40	dB
Switching time (combined to single) . . . . .	4	s typ
Controller prime power . . . . .	99-264 V, 50/60 Hz, 10 W max	

### Mechanical

Combiner dimensions . . . . .	see outline
Controller dimensions . . . . .	89 x 483 x 360 mm
Net weight:	
combiner . . . . .	1.9 kg approx
controller . . . . .	4.5 kg approx

### Connectors

Controller:	
prime power . . . . .	IEC 320
RS 422/RS 485 . . . . .	9-pin 'D'-type socket
HPA 1 and HPA 2 interface . . . . .	9-pin 'D'-type socket
RF input to splitter . . . . .	SMA female
Waveguide flange . . . . .	UBR120 (WR75)

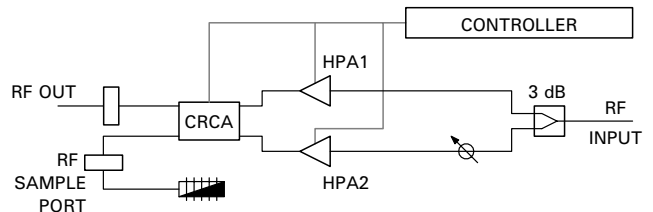
### Environmental

Operating temperature . . . . .	-20 to +50	°C
EMC . . . . .	EEC 89/336	

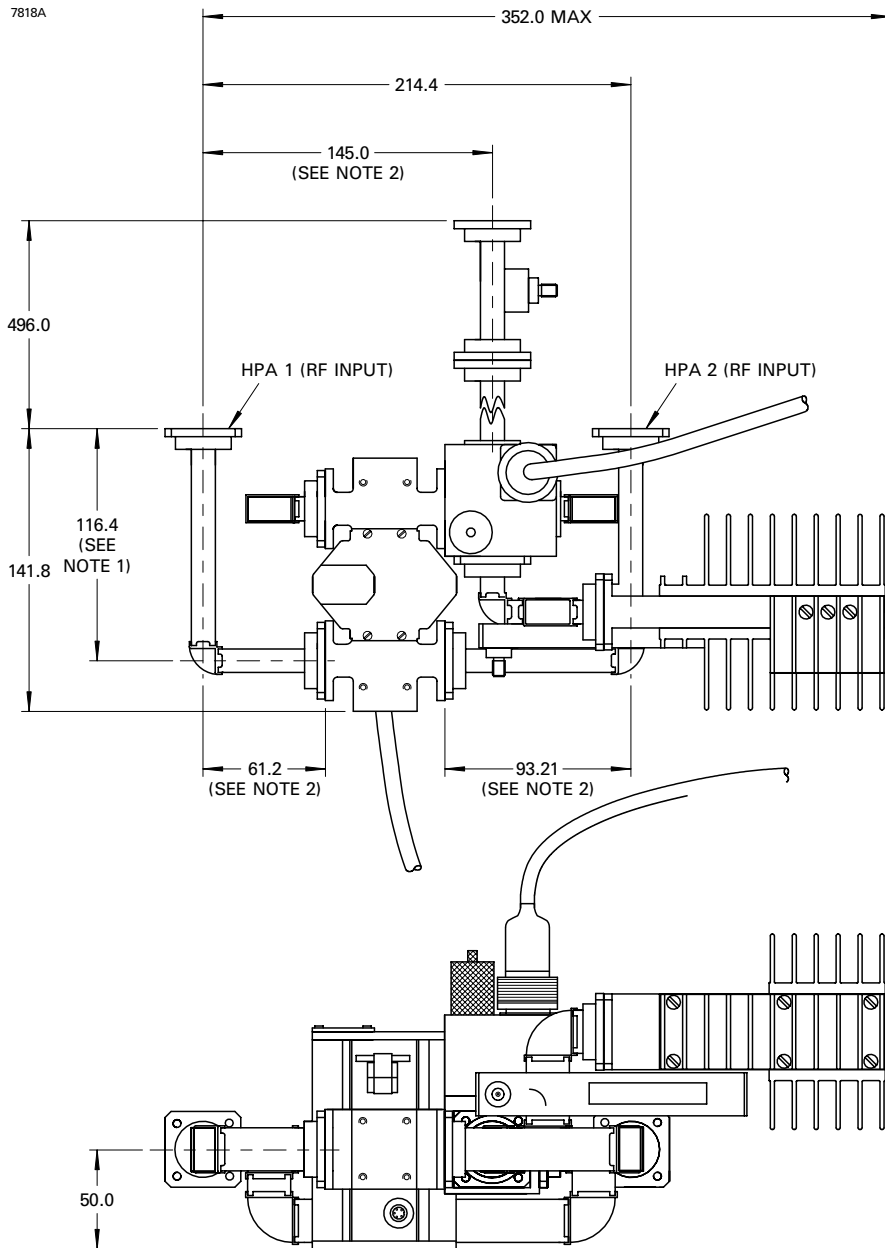
### NOTE

Cables are provided at a standard length of 6 metres (distance between the HPA/waveguide and the control unit). Other lengths are available on request.

### BLOCK DIAGRAM



**OUTLINE (All dimensions in millimetres; dimensions without limits are nominal)**



**Outline Notes**

1. The standard dimension is shown; this is a minimum. Any non-standard requirements are to be specified at order placement.
2. The standard dimension between the HPAs is shown; this is a minimum. Any increased distance between the HPAs is to be specified at order placement.  
Due to phase matching, any increase in the RF path length will be taken up equally between the HPA1 and 2 waveguide interfaces.

**HEALTH AND SAFETY HAZARDS**

e2v technologies electronic devices are safe to handle and operate provided that the relevant precautions are observed. e2v technologies does not accept responsibility for damage or injury resulting from the use of electronic devices it produces.



**RF Radiation**

All RF connectors must be correctly fitted before operation.



**High Voltage**

Dangerous voltages are present within the TWT amplifiers and controller unit when operating normally. However, the equipment is designed so that personnel cannot come into contact with high voltage circuits unless covers are removed.

Whilst e2v technologies has taken care to ensure the accuracy of the information contained herein it accepts no responsibility for the consequences of any use thereof and also reserves the right to change the specification of goods without notice. e2v technologies accepts no liability beyond that set out in its standard conditions of sale in respect of infringement of third party patents arising from the use of tubes or other devices in accordance with information contained herein.