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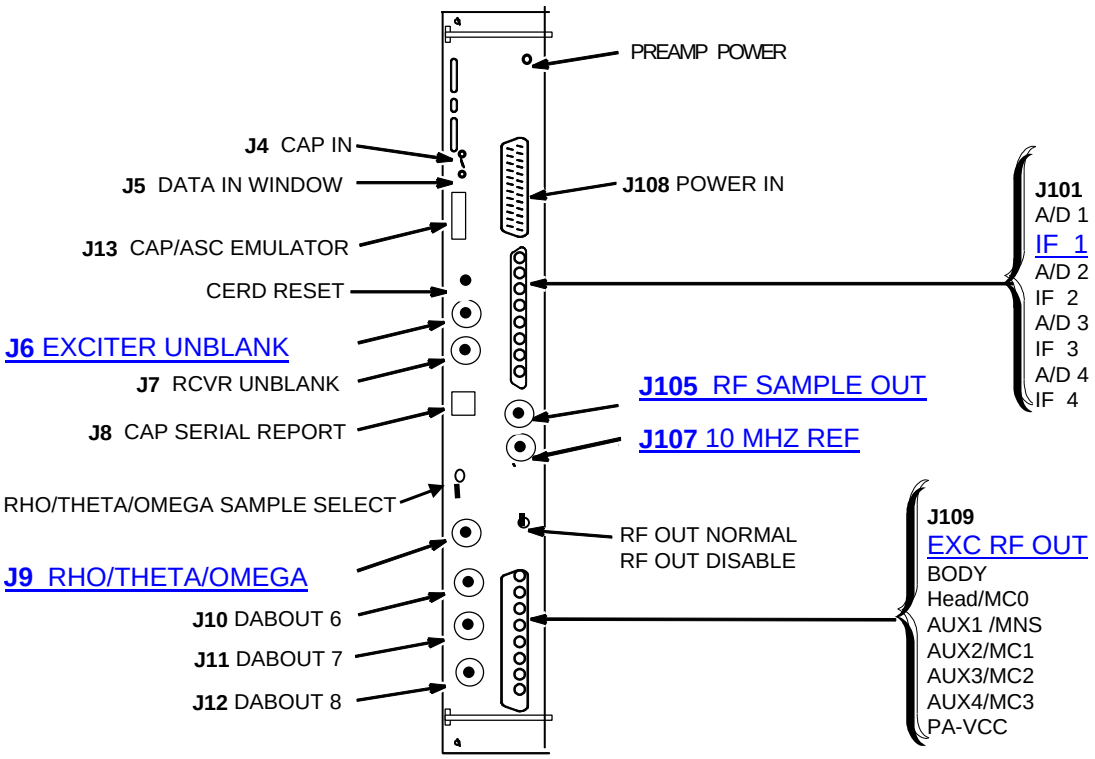
1- REQUIRED TOOLS

- TPS RF Connector/Adapter and Cable Test Kit, 46-301927G1
- RF Test Cables Kit 46-251710G4
- 100 mHz oscilloscope, Tektronix® 468 or equivalent, 46-183029P61 or P64

2- DESCRIPTION

1. The testpoints to scope for specific waveforms are shown in Illustration 2-1 for both 1.0T and 1.5T systems. Click on the hyperlinks to see scope waveforms.



TPS/ISE UCERD WAVEFORM TEST POINTS
ILLUSTRATION 2-1

2. The IPG Board Scope Trigger, MR2A30A7J8, is used whenever an external trigger signal is required. Use the BNC to SMB test cable 46-301549P5 (part of TPS RF Connector/Adapter and Cable Test Kit) whenever this is required.

3. RF signals (versus logic signals) require a 50Ω input termination. If the scope does not have a 50Ω input selection, attach a 50Ω in-line termination (part of RF Test Cables Kit) at the scope channel input and set it to 1MΩ (high impedance) input. Check the specific channel setups on each waveform Illustration.

4. Each scope waveform contains the proper channel input selections, time base and triggering information.

3- EXCITER SCAN PREPARATION

1. Disconnect the cable to the CERD Module, RF EXCITER OUT, MR2A30A13J109.

2. At keypad on front magnet enclosure, press LANDMARK and ADV TO SCAN.

3. At Operator Work space, select the scan icon in the desktop control panel, if you have not already done so.

4. Click on **[New Pt]**, and enter
   Id: **geservice**
   Name: **rf waveform**
   Weight (Lb): **111**
   Set Patient Protocols to **Service**.

5. In the Protocol field, type **o.6.1** (o=Other, 1=series) to load protocol.

6. Click on **[Save Series]**.

7. **[Research Operations]**, **[Setup Params]** with the right mouse button, enter settings per the following
   R1 = **13**
   R2 = **14**
   TG = **200**
   Number of Frames: **2 <Enter>**

   Note

   The **<Enter>** key must be pressed after the numeric entries in order for the entries to be saved.

   WINDOW 1
   Frame:**1 <Enter>**
   Frame:**0 <Enter>**

   WINDOW 2
   Frame:**1 <Enter>**
   Frame:0 **<Enter>**
   [Done]

8. Set calmode= **5 <Enter>** (SINC Pulse), select **[Accept]**.

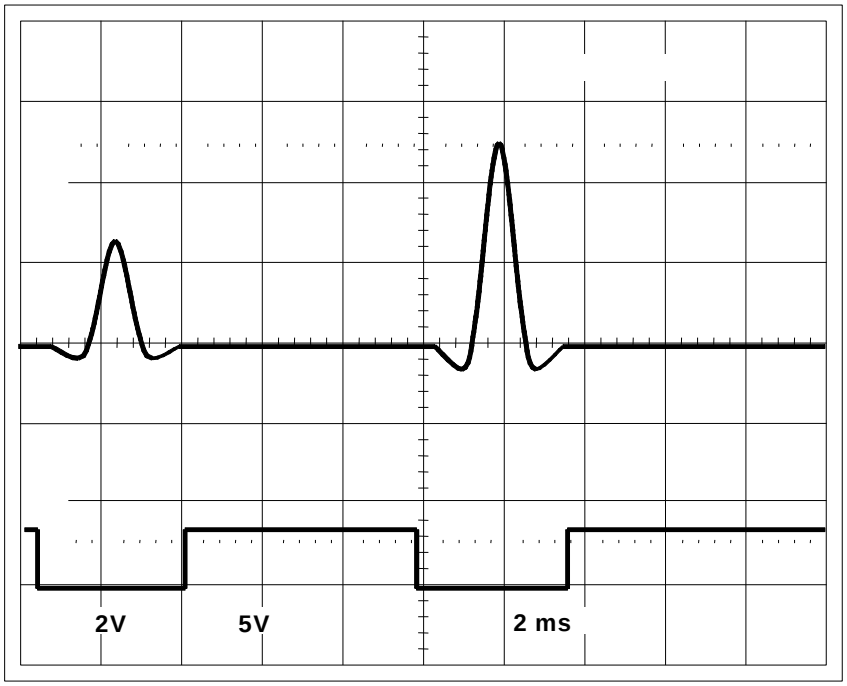
9. Select **[Manual Prescan]**, **[Scan TR]**

4- RECEIVER SCAN PREPARATION

1. Set pismode= **3 <Enter>** (Receiver Loopback), select **[Accept]**.

2. Select **[Manual Prescan]**.

5- WAVEFORM DIAGRAMS



RHO OUT SAMPLE (J9)

Scope Channel 1:
1MΩ input
2V/div

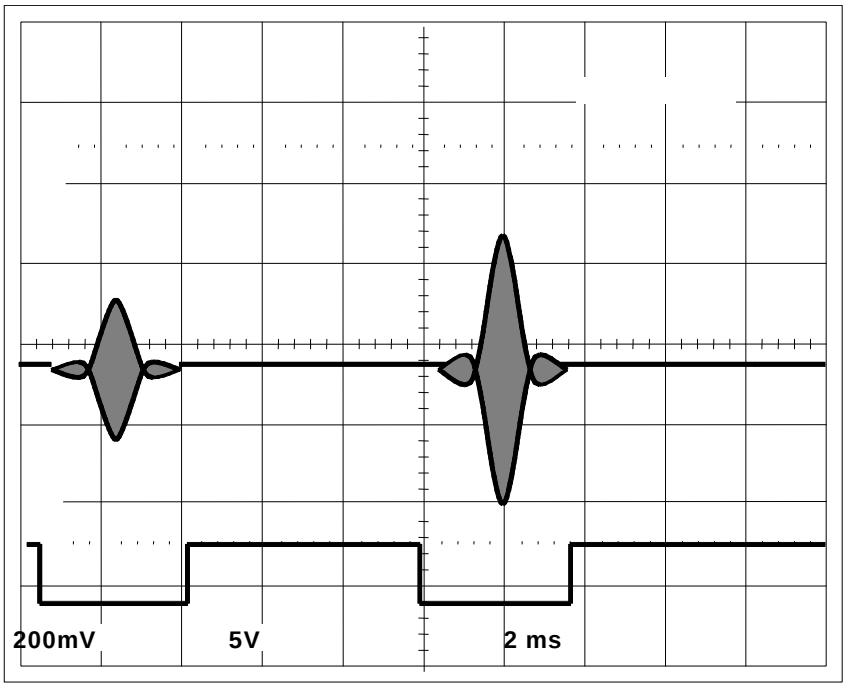
EX UNBLK* (J6)

Scope Channel 2:
1MΩ input
5V/div

Trigger: ←**NOTE**
External

RHO OUT SAMPLE (J9) WAVEFORM
ILLUSTRATION 5-1

Click Here to return to Illustration 2-1



RF SAMPLE OUT (J105)

Scope Channel 1:
50Ω input ← **NOTE**
100mV/div

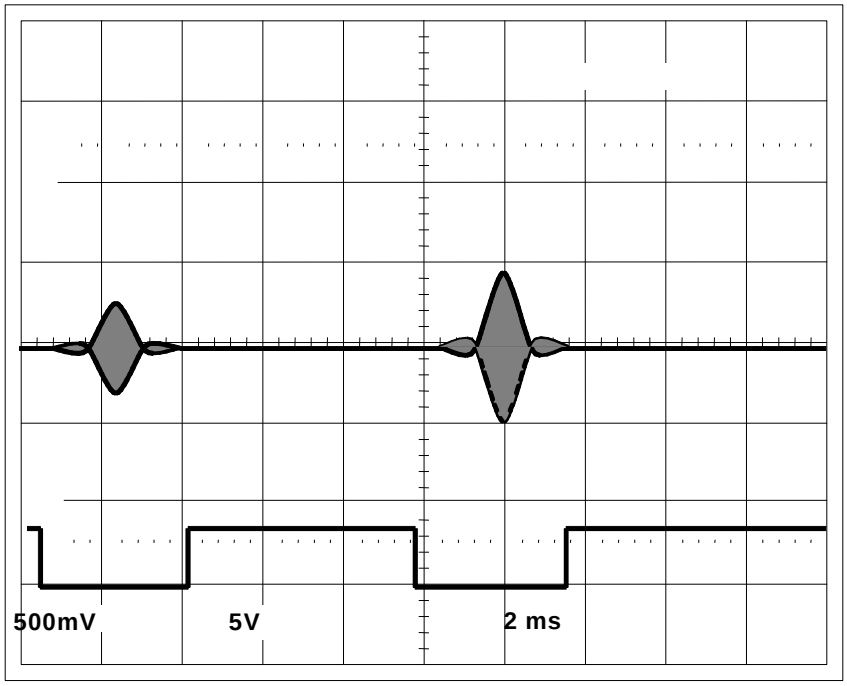
EX UNBLK* (J6)

Scope Channel 2:
1MΩ input
5V/div

Trigger: ← **NOTE**
External

RF SAMPLE OUT WAVEFORM (J105)
ILLUSTRATION 5-2

Click Here to return to Illustration 2-1



EXCITER RF OUT (J109)

Scope Channel 1:
50Ω input ← **NOTE**
500mV/div

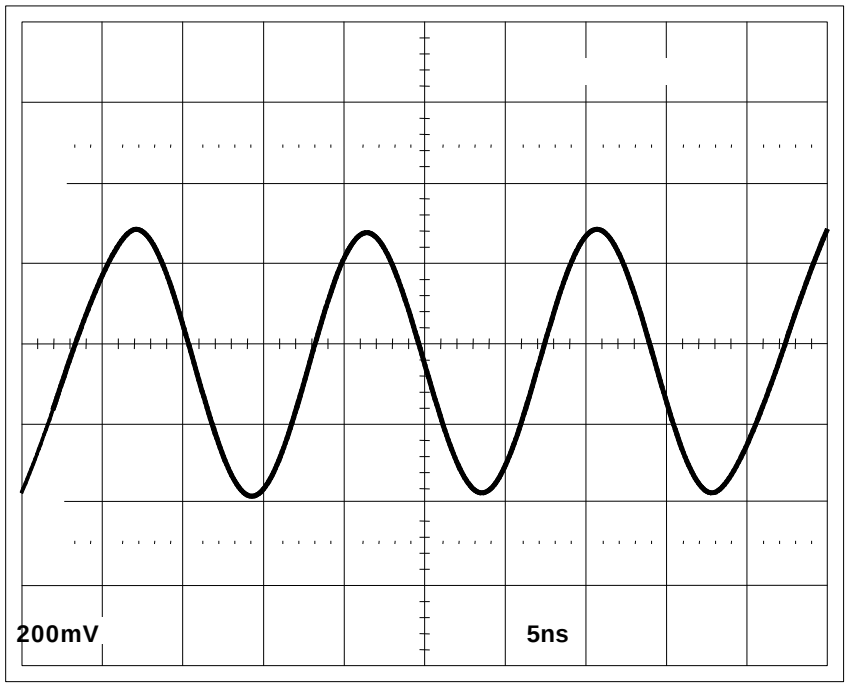
EX UNBLK* (J6)

Scope Channel 2:
1MΩ input
5V/div

Trigger:
External

EXCITER RF OUT WAVEFORM (J109)
ILLUSTRATION 5-3

Click Here to return to Illustration 2-1



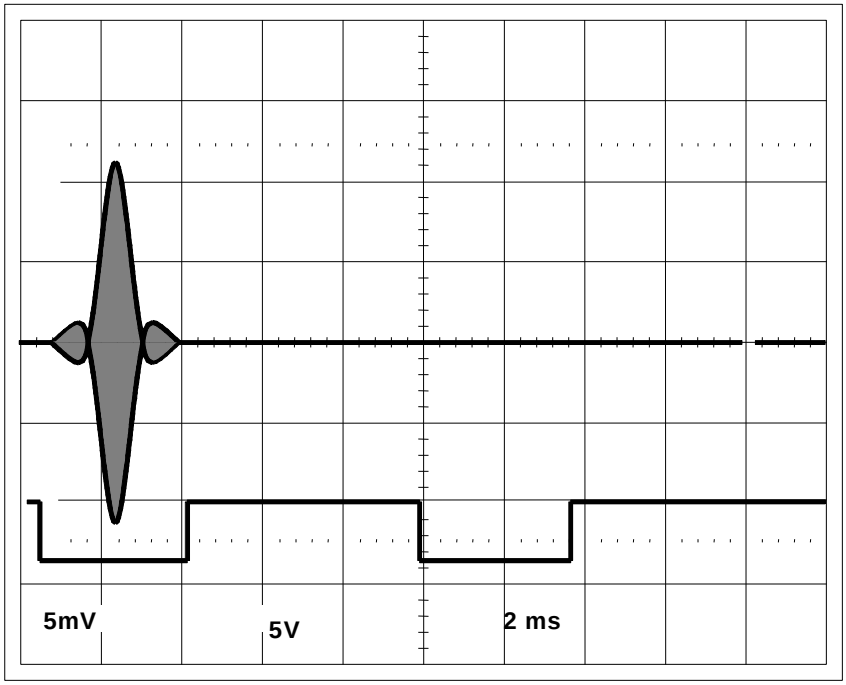
10 MHZ REF LO1 (J107)

Scope Channel 1:
50Ω input
200mV/div

Trigger:
Channel 1

10 MHZ REF LO1 (J107)
ILLUSTRATION 5-4

Click Here to return to Illustration 2-1



I.F. SAMPLE (IF1)

Scope Channel 1:
50Ω input
5mV/div

EX UNBLK* (J6)

Scope Channel 2:
1MΩ input
5V/div

Trigger:
External

I.F. SAMPLE (IF1)
ILLUSTRATION 5-5

Click Here to return to Illustration 2-1

6- SYSTEM RESTORATION

1. Reconnect the cable to the CERD module, RF EXCITER OUT, MR2A30A13J109.

2. Ensure that all system cables are installed.

REVISION HISTORY

REV	DATE	AUTHOR	PRIMARY REASONS FOR CHANGE
0	June 2, 1998	J. Saperstein	Initial Conversion from Toolbook to Word.
1	Nov 12, 1998	M. Keber	Removed obsolete 8.1 information; misc. style guide cleanup.
2	Oct 13, 1999	M. Keber	Added correct proprietary heading to document.
3	Feb. 22, 2000	R. Kaufman	Added missing waveforms from toolbook conversion.