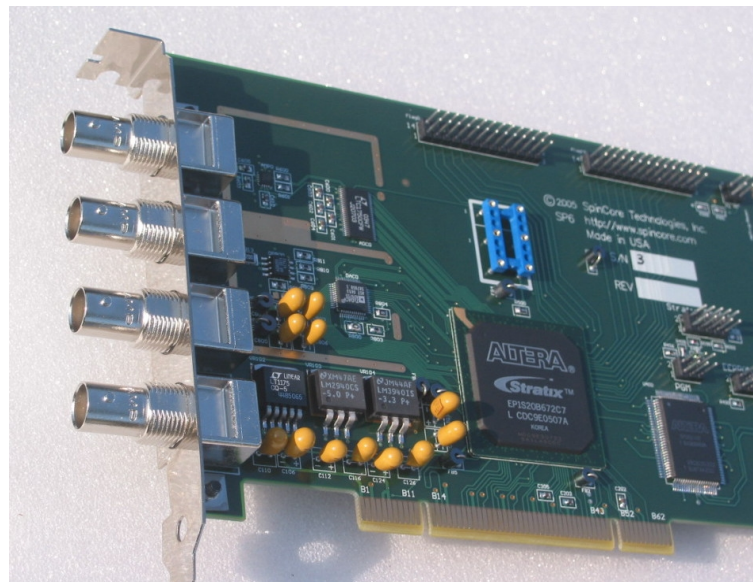# RadioProcessor™

Firmware Revision 10-10

Addendum to Owner's Manual

Prepared for TopSpin Medical

SpinCore Technologies, Inc.
http://www.spincore.com

Congratulations and *thank you* for choosing a design from SpinCore Technologies, Inc.

We appreciate your business!

At SpinCore we try to fully support the needs of our customers. If you are in need of assistance, please contact us and we will strive to provide the necessary support.

Table of Contents

I. Your customized design

Differences from the main User's Manual

Your version of the RadioProcessor™, firmware revision 10-10, exhibits all the functionality described in the main RadioProcessor manual as of June 12, 2006.   This addendum contains additional information which is intended to supersede what is contained in the original product manual.

Your board differs from the main RadioProcessor design in the following ways:

	RadioProcessor Manual	Firmware 10-10
Frequency registers	16	4
Tx phase registers	16	2
Digital output bits	4	9

Table 1: Changes in capability

The available signals on the IDC Header pins have also changed:

Bit in flag word	Function	Pin on Flag12..23
N/A	Ground	14-26
N/A	Unused	13
23	sin (imaginary channel)	12
22	phase register select	11
21	cos (real channel)	10
20	phase register select	9
19	TTL bit 8	8
18	TTL bit 7	7
17	TTL bit 6	6
16	TX phase register select	5
15	tx_enable	4
14	TTL bit 5	3
13	TTL bit 4	2
12	Frequency register select	1

Bit in flag word	Function	Pin on Flag0..11
N/A	Ground	14-26
N/A	Unused	13
11	Frequency register select	12
10	trigger_scan	11
9	phase_reset	10
8	Shape period select	9
7		8
6		7
5	Amplitude select	6
4		5
3	TTL bit 3	4
2	TTL bit 2	3
1	TTL bit 1 (also BNC1)	2
0	TTL bit 0 (also BNC 0)	1

Table 2: New IDC connector pin out

Differences in programming with spinapi

This design is backward-compatible with code written for the standard RadioProcessor. To make use of the extra output bits, simply pass 9 bits for the *flags* argument in pb_inst_radio() or pb_inst_radio_shape(). For example, passing 0x1FF will turn on all TTL bits shown above in Table 2. Passing 0x010 will turn on TTL bit 4 and turn all other TTL bits off.

Contact Information

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