| 1       | GND   | 2  | G TTL             |        |
|---------|-------|----|-------------------|--------|
| 3       | R TTL | 4  | B TTL             |        |
| 5       | R TTL | 6  | H-sync            |        |
| 7       | G TTL | 8  | V-Sync            |        |
| 9       | B TTL | 10 | 5V/GND/open       |        |
|         |       | 10 | Develop           |        |
| 11      | GND   | 12 | R analog          |        |
| 13      | GND   | 14 | G analog          |        |
| 15      | GND   | 16 | B analog          |        |
| 17      | GND   | 18 | C-SYNC (TIGA/VGA) |        |
| 19      | GND   | 20 | 5V/GND/open       |        |
|         |       |    | Pin 10            | Pin 20 |
|         |       |    | -                 | -      |
| analog  |       |    | open              | 5V     |
| digital |       |    | 5V                | GND    |

Problems:

The CSync signal for the analog RGB needs HSync (+) and VSync (-) to be usable for the monitor.

The resulting Signal looks like this:

VGA has different polarities for different modes, and the simple mixing of signals will not result in the correct waveform. A sense circuit has to be made to allow positive and negative polarity VSync signals to be processed.