ATWILC3000 INSTRUCTION MANUAL (PER KDB 996369 D03)
Atmel ATWILC3000 module provides Wi-Fi capabilities to a Host Processor.

Section 2.1: General
The modular transmitter is only approved for use by the grantee in its own products and not intended for sale to third parties.

The following connections are required for the proper operation:
- 3.3V power supply,
- VDDIO,
- CHIP_EN, RESET control signals,
- SPI or SDIO interface.

It is recommended to install 0 Ohm series resistors on interface traces as place holders in case there is a need to add some filtering on those line to reduce interference from the Host Processor.

Module can be installed on a product's carrier board; in this case carrier board must have 20 x 7 (mm) clearance area (no traces or copper on any layer) under module's printed antenna. Clearance area 20 mm dimension must be along the carrier board edge.

Module must have a Linux processor that can enable a specific gain table to be used.

Section 2.2: List of Applicable FCC Rules
The applicable FCC rules that apply are 15.247.

Section 2.3: Summarize the specific operational use conditions
Power of module shall be reduced to 15.84mW / 12dBm via specific gain table shown below. The gain table is downloaded to the module via the host processor.

NA		Channel										
		1	2	3	4	5	6	7	8	9	10	11
Modulation Type	1	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13
	2	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13
	5.5	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13
	11	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13
	6	-10.5	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10
	9	-10.5	-10	-10	-10	-10	-10	-10	-10	-10	-10.5	-10.5
	12	-10.5	-10	-10	-10	-10	-10	-10	-10	-10	-10.5	-10.5
	18	-10.5	-10	-10	-10	-10	-10	-10	-10	-10	-10.5	-10.5
	24	-10.5	-10	-10	-10	-10	-10	-10	-10	-10	-10.5	-10.5
	36	-10.5	-10	-10	-10	-10	-10	-10	-10	-10	-10.5	-10.5
	48	-10.5	-10	-10	-10	-10	-10	-10	-10	-10	-10.5	-10.5
	54	-10.5	-10	-10	-10	-10	-10	-10	-10	-10	-10.5	-10.5
	mcs0	-11	-10	-10	-10	-10	-10	-10	-10	-10	-10	-12
	mcs1	-11	-10	-10	-10	-10	-10	-10	-10	-10	-10	-12
	mcs2	-11	-10	-10	-10	-10	-10	-10	-10	-10	-10	-12
	mcs3	-11	-10	-10	-10	-10	-10	-10	-10	-10	-10	-12
	mcs4	-11	-10	-10	-10	-10	-10	-10	-10	-10	-10	-12
	mcs5	-11	-10	-10	-10	-10	-10	-10	-10	-10	-10	-12
	mcs6	-12	-12	-12	-12	-12	-12	-12	-12	-12	-12	-12
	mcs7	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13	-13

Section 2.4: Limited module procedures
This class II permissive change (C2PC) is limited to the following 17 hosts: SS300, T300, T300e, SS500, T500, T500e, T600, T600e, SS350, T350, S16L, S16H, T17, M17, T20, M20, and M30.

Section 2.5: Trace antenna designs
This does not apply to the equipment.

Section 2.6: RF exposure considerations
Module must be installed into the end product to provide a minimum separation distance of 10mm (1cm) from human extremities for ISED compliance and 5mm for FCC compliance. Minimum separation distance between 802.11b/g/n and humans across the 17 host machines is 23.73mm (2.373cm). The module must also not be co-located (<20cm) with any other radio antenna.

Section 2.7: Antennas
Module has an integrated chip antenna with 0.5dBi gain.

Section 2.8: Label and compliance information
Host products shall be labeled with such and host product operator's manuals must state the following:
Contains FCC ID: 2AYRZWILC3000
Contains IC: 26916-ATWILC3000

Host product operator's manuals shall contain the following statement:

> "This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
>
> > (1) This device may not cause harmful interference, and
> > (2) this device must accept any interference received, including interference that may cause undesired operation".

Section 2.9 Information on test modes and additional testing requirements
Spot checks of in-host spurious emissions are recommended. The worst-case spurious emission occurs at 1Mbps modulation. Minimum in host spurious emission testing shall include 1Mbps for channel 1 at 2412MHz and 1Mbps for channel 11 at 2462MHz.

Section 2.10 Additional testing, Part 15 Subpart B disclaimer
This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the module/product.
- Increase the separation between the equipment and module/product.
- Consult the dealer or an experienced radio/TV technician for help.
- Changes and modifications made to the equipment without the approval of manufacturer could void the user's authority to operate this equipment.