DESCRIPTION

A systematic approach leading to the decision to use or to purchase high technology components, devices, equipment or systems.

Title : A systematic approach leading to the decision to use or to purchase high technology components, devices, equipment or systems.

BACKGROUND OF THE INVENTION

AN EMERGENCY RESPONSE TO THE COVID-19 PANDEMIC

Techno-Science Design & Engineering Emergency Type Approval Release

A scaled down version of Techno-Science Design & Engineering medical and communication product known as "SHOULD WE STRIVE TO ACHIEVE "A ZERO-COVID-19"?" was developed and published on the 10th of October 2021.

Taking the form of a digital learning product business solution, the scaled down version of the medical and communication product has been made available to the members of the public via the internet and subsequently via Techno-Science Design & Engineering emergency call known as "Techno-Science Design & Engineering Emergency Type Approval Release".

It must be emphasized that this invention addressed a feature or weakness that was inherent in all microwave and Radio Frequency (RF) wireless communication products, systems and equipment and could not be remedied or fixed by active product design alone. The complete resolution of this issue or weakness would require the active participation and cooperation of the end users, the people and technology infrastructure constituting the immediate environment of the end users. Techno-Science Design & Engineering's patent pending application details an invention that would lead to the resolution of this issue which could not be resolved by active product design alone. The COVID-19 pandemic has necessitated that the members of the public be aware of the role and importance of social distancing and crowd control in the prevention of the dreadful COVID-19 disease. Similarly, it is imperative that the end users be made to understand via training the importance and the role played by government regulatory bodies specifically, the Federal Communications Commission (FCC) and the Infocom Media Development Authority of Singapore (IMDA) in the regulation of microwave and RF wireless communication products, systems and equipment in Singapore. FCC regulatory requirements take into consideration the harmful effects of microwave/RF emissions and the potential harmful effects of the superposition of microwave/RF emissions from multiple sources on the members of the public as well as the importance of the roles that social distancing and crowd control play in the regulation of microwave/RF emissions. The FCC regulation of microwave/RF emissions has been invoked to enable the urgent, time

critical rapid usage and adoption of the following two scaled down versions of the medical and communication products namely:

1. Techno-Science Design & Engineering "The Rise Of The Complete Solution" which consists of two parts.

   Part One: Techno-Science Design & Engineering animated video presentation entitled “SHOULD WE STRIVE TO ACHIEVE "A-ZERO-COVID-19” ?".

   Part Two: Techno-Science Design & Engineering solution module’s business solution entitled “SHOULD WE STRIVE TO ACHIEVE "A-ZERO-COVID-19” ?".

2. Techno-Science Design & Engineering solution module’s business solution entitled “SHOULD WE STRIVE TO ACHIEVE "A-ZERO-COVID-19” ?".

in Mankind fight against the COVID-19 pandemic.

From a product quality standpoint, advancement in technology should ideally lead to the development of greener, lower cost and better-quality products. From the technology, quality and cost stand point, the high technology components, devices, equipment or systems should ideally possess but not limited to the following features or capabilities, namely

a. Energy efficient - The high technology components, devices, equipment or systems should consume as little energy as possible, that is it should have a low overall system energy consumption to usage ratio.
b. Good signal reception - Better signal quality such as in the case of mobile handsets clearer sound quality, lesser drop calls and better coverage.
c. Improve bandwidth utilization
d. Lower cost per unit bandwidth utilization.
e. Better product features.
f. Improvement in radiation emissions, that is lower levels of radiation emissions.
g. A more sensitive wireless/microwave/radio frequency (RF) front end receiver.
h. A more efficient wireless/microwave/radio frequency (RF) power amplifier.
i. Does not break down or malfunction.
j. A better-quality power source such as battery which does not have a history of exploding.
k. Long term cost saving features such as high initial purchase cost of the high technology components, devices, equipment or systems but low overall system energy consumption to usage ratio and advance or multiple product features.

A systematic approach leading to the decision to use or to purchase the high technology components, devices, equipment or systems has been proposed.

The considerations leading to the decision to use or to purchase the high technology components, devices, equipment or systems are governmental regulations, technology (including environmental friendliness via the use of green technology), cost, country of manufacturer and warranty.

The decision to purchase high technology components, devices, equipment or systems such as a wireless router is not a one-time decision and constant review of the decision against the latest technological advancement and trends would be necessary.

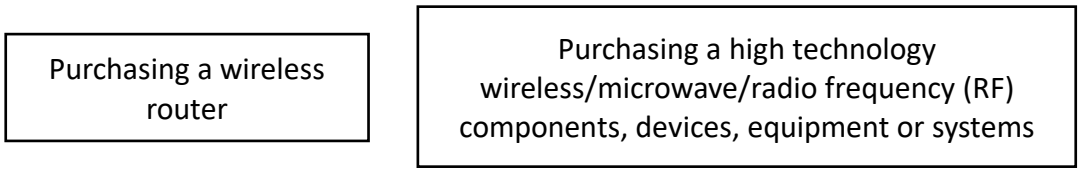
BRIEF DESCRIPTION OF THE DRAWINGS

Please see Claim 3

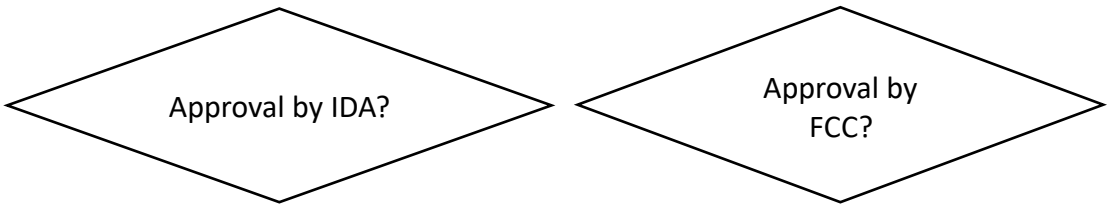
DETAIL DESCRIPTION OF THE DRAWINGS

Definitions

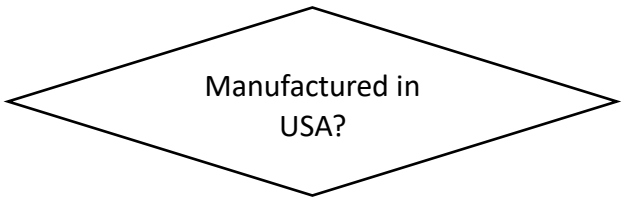
a. The Processes – The purchase of high technology wireless/microwave/radio frequency (RF) components, devices, equipment or systems such as the wireless router.



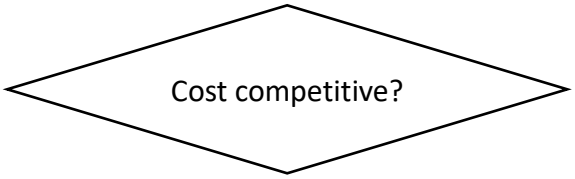
b. The Approvals - Approvals by IDA and FCC, with "Y" implying a "Yes or approved" and "N" implying a "No or not approved" in the decision making process in the flow chart.



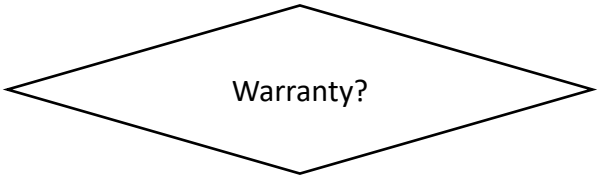
c. The location of manufacture – The location where the high technology wireless / microwave / radio frequency (RF) components, devices, equipment or systems such as the wireless router had been manufactured –with "Y" implying a "Yes , manufactured in USA" and "N" implying a "No, not manufactured in USA" in the decision making process in the flow chart.



d. The cost competitiveness - The cost competitiveness of the high technology wireless / microwave / radio frequency (RF) components, devices, equipment or systems such as the wireless router - with “Y” implying a “Yes, cost competitive” and “N” implying a “No, not cost competitive” in the decision making process in the flow chart.



e. The warranty – The manufacturer’s warranty for the high technology wireless/microwave/radio frequency (RF) components, devices, equipment or systems, such as the wireless router with - “Y” implying a “Yes, it is under warranty” and “N” implying a “No, it is not under warranty” in the decision making process in the flow chart.



f. The high technology wireless/microwave/radio frequency (RF) components, devices, equipment or systems such as the wireless router could not be used in Singapore because it was not approved by the Infocomm Authority Of Singapore (IDA).

Wireless router cannot be used in Singapore if it was not approved by IDA.	Wireless/microwave/radio frequency (RF) components, devices, equipment or systems cannot be used in Singapore if they were not approved by IDA.

g. The high technology wireless/microwave/radio frequency (RF) components, devices, equipment or systems such as the wireless router could not be used in USA because it had not been approved by FCC (Federal Communications Commission). There is a need to follow the technological trend more closely.

1. Device cannot be used in USA. 2. There is a need to follow the technological trend more closely.

h. In the event that the country of manufacture for the high technology wireless/microwave/radio frequency (RF) components, devices, equipment or systems such as the wireless router is not USA or not mention at all, even though the high technology wireless/microwave/radio frequency (RF) components, devices, equipment or systems such as the wireless router could be used internationally upon FCC approval, subjected to local governmental regulations, there would still be a need to follow the technological advancement and technological trends more closely.

1. Can be used internationally upon FCC approval but subjected to local governmental regulations. 2. There is a need to follow the technological trend more closely.

i. In the event that the high technology wireless / microwave / radio frequency (RF) components, devices, equipment or systems such as the wireless router is not cost competitive, budgeting and cost review of the decision to purchase would be necessary. Even though the high technology wireless / microwave / radio frequency (RF) components, devices, equipment or systems such as the wireless router could be used internationally upon FCC approval, subjected to local governmental regulations,

there would still be a need to follow the technological advancement and trend more closely.

1. Can be used internationally upon FCC approval but subjected to local governmental regulations. 2. Budgeting or cost review would be necessary. 3. There is a need to follow the technological trend more closely.

j. In the event that the high technology wireless / microwave / radio frequency (RF) components, devices, equipment or systems such as the wireless router has no warranty or a warranty period that is less than one year, even though the high technology wireless / microwave / radio frequency (RF) components, devices, equipment or systems such as the wireless router could be used internationally upon FCC approval, subjected to local governmental regulations, there would still be a need to follow the technological advancement and trend more closely.

1. Can be used internationally upon FCC approval but subjected to local governmental regulations. 2. Poor quality. 3. There is a need to follow the technological trend more closely.

k. In the event that the high technology wireless / microwave / radio frequency (RF) components, devices, equipment or systems such as the wireless router is covered by a warranty period of one year or more, even though the high technology wireless / microwave / radio frequency (RF) components, devices, equipment or systems such as the wireless router could be used internationally upon FCC approval, subjected to local governmental regulations, there would still be a need to follow the technological advancement and trend more closely.

I.

1. Can be used internationally upon FCC approval but subjected to local governmental regulations.
2. There is a need to follow the technological trend more closely.

Overview of Figures

Please see Claim 3

Claim 1

A systematic approach leading to the purchase and use of high technology components, devices, equipment or systems has been proposed which consisted of the factors affecting the choice of high technology wireless/microwave/radio frequency (RF) components, devices, equipment or systems namely,

a. Local governmental regulations
b. Technology (including environmental friendliness via the use of green technology)
c. Cost
d. Country of manufacturer
e. Warranty

and the listing of the local governmental regulation website, as well as the use of the Federal Communications Commission (FCC), the United States' governing body for the electromagnetic spectrum and their safety regulations on the level of radiation emissions, as the technology regulator.

Claim 2

In accordance to Claim 1, the method or formulation, which lead to the decision to purchase high technology components, devices, equipment or systems taking for example a wireless router is dependent upon primary approvals by FCC (Federal Communications Commission) and local governmental regulations such as the regulations that have been stipulated by IMDA (Infocomm Media Development Authority Of Singapore) for local usages and other factors such as the country of manufacture, cost competitiveness and duration of product warranty thus leading to the decision making process, starting with a first step being the decision to purchase high technology components, devices, equipment or systems taking for example a wireless router, this is followed by a second step to check if the high technology components, devices, equipment or systems taking for example a wireless router was being approved by IMDA, this is followed by a third step to check if the high technology components, devices, equipment or systems taking for example a wireless router was being approved by FCC for usage in U.S.A, this is followed by a fourth step to check if the high technology components, devices, equipment or systems taking for example a wireless router was being manufactured in U.S.A, this is followed by a fifth step to check if the high technology components, devices, equipment or systems taking for example a wireless router was cost competitive, this is followed by a sixth step to check if the high technology components, devices, equipment or systems taking for example a wireless router was under warranty and in all cases the high technology components, devices, equipment or systems taking for example a wireless router could be used internationally upon approval by FCC but subject to local governmental regulations and there would be a need to follow the technological trend more closely and while budgeting and cost review would be necessary for costly high technology components, devices, equipment or systems taking for example a wireless router, short warranty period or the absence of it would imply poor quality of the high technology components, devices, equipment or systems taking for example that of a wireless router.

Claim 3

In accordance to Claim 1 and Claim 2, the systematic approach leading to the decision to use or to purchase high technology components, devices, equipment or systems concludes at the Check List which lists down and affirms all the considerations that are necessary for the use or purchase of an optimum high technology wireless / microwave / radio frequency (RF) components, devices, equipment or systems taking for example the wireless router with the optimum decision leading to the use or purchase of an optimum high technology wireless / microwave / radio frequency (RF) components, devices, equipment or systems taking for example the wireless router being used as a standard for continuous improvement in the event that a suboptimum decision to use or purchase a high technology wireless / microwave / radio frequency (RF) components, devices, equipment or systems taking for example the wireless router had been made.

Additional Claims

Claim 4 : Claim 1, Claim 2 and Claim 3 could be presented in a form of a software program.

Claim 5 : Claim 1, Claim 2 and Claim 3 could be presented on the internet.

Claim 6 : Claim 1, Claim 2 and Claim 3 could be presented in books and magazine.

Claim 7 : Claim 1, Claim 2 and Claim 3 could be presented in a form of charts.

Claim 8 : Claim 1, Claim 2 and Claim 3 could be presented in a form of media advertisement.

Claim 9 : Claim 1, Claim 2 and Claim 3 could be presented in a form of presentation slides.

Claim 10 : Claim 1, Claim 2 and Claim 3 could be presented in a form of speech.

Addendum

On the 1st of October 2016, Infocomm Development Authority of Singapore (IDA) and the Media Development Authority (MDA) had undergone restructuring to form IMDA (Info-communications Media Development Authority) and as such all references that had been made in the patent to Infocomm Development Authority of Singapore (IDA) should be updated to IMDA (Info-communications Media Development Authority).